Health Communiqué

2013 Australia 3.0 Health stream examined obstacles to digital transformation within the sector

Australia is increasingly facing a number of healthcare challenges. Continued population growth, demands for increased access to high-quality healthcare, an aging population, shortage of clinicians, and increasing budgetary pressures in healthcare institutions are just some of the issues faced by an already budget-constrained system. Both public and private healthcare providers are responding by increasing their investment in technology, including in remote device and mobile communications to better enable their workforces and deliver quality care where and when it is needed. In this context some of the key issues facing the healthcare industry include enhancing worker productivity, reducing human error, achieving quality healthcare outcomes and empowering patients to help manage their own health.

The business of healthcare, whether at a doctor's office, hospital, outpatient facility or long-term care facility, often depends upon a delicate balance between urgency, accuracy, privacy, compliance and technology. This can make solving issues in the healthcare industry seem like a daunting task, but with the right technology, significant improvements are easily within reach.

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2013 Health Recommendations

1. Telehealth

The current resource stress on Australia's health sector is unsustainable. While technology offers an opportunity to improve the efficiency, effectiveness and quality of individual health services, the bigger opportunity lies in leveraging enabling technologies to develop new models of care. Telehealth - the use of ICT to deliver health services– provides a framework to rethink how health care services are delivered.

Despite various pilots and implementations of telehealth services, large scale adoption of telehealth, and specifically as an alternative to location based services, does not exist.

The actions outlined below aim to drive telehealth as a viable, sustainable health care. They are premised on an understanding that the barrier to telehealth adoption is not the technology but the absence of a clear, sustainable business model.

Identify and develop a strategy for the wide scale adoption of telehealth in Australia.

a) Supported by detailed macro-economic modelling develop a sustainable telehealth business model. This includes:

    i.   Identification of the specific patient groups that will benefit most from access to telehealth services

    ii.   Identification of the clinical services suitable for telehealth delivery

    iii.   Identification and review of current reimbursement models that can be applied to support telehealth service delivery

    iv.   Exploration of new reimbursement models that can provide required quality of care for selected population with suitable reimbursement for clinicians.

b) Based on the outcomes of (a), develop a large scale trial, engaging both public and private sector providers, of a proposed telehealth business model with a focus on demonstrating the value proposition to patient groups, clinicians and health funders.

c) Develop a telehealth education program for technology industry, clinicians, policy makers and health consumers.

    i.   Collect and summarise relevant evidence, educational content and associated literature on telehealth implementations.

    ii.   Develop educational programs suitable for various stakeholders in telehealth delivery including technology industry, clinicians, policy makers and healthcare consumers.

2. Multidisciplinary Collaboration

Australia's health system is fragmented and, in the main, tied to outmoded service models and cultural practices. This is notwithstanding that health practitioners and service providers embrace state of the art clinical technologies and consumers have increasingly more sophisticated health and medical information resources, at their fingertips.

Despite the Commonwealth and State jurisdictions engaging in a broad range of activities, with resources targeted at identifying gaps; improving health service arrangements; and developing new tools and approaches to support the health system, activities are typically disjoint and lack collaboration

In an environment that is premised on the philosophy that decisions are evidenced based, the utilisation of technology to support networks and frameworks to build the 'evidence' to drive much needed change is under developed.   This is despite the availability of large volumes of data and increasingly 'smart' technologies.

To enable technology to be used more effectively as a driver of business transformation in the health system, action is required in the following areas.

a) *Review of health funding models*

The healthcare sector is largely fragmented, characterised by small business owners in the area of primary care and similarly for specialist physicians engaged in private practice. Whilst the Commonwealth largely funds primary care services through the Australian Medicare Benefits Scheme, private practice specialists receive reimbursements through a combination of Medicare, health insurance funds and substantial co-payments from patients. The acute sector is dominated by State and Territory Governments delivering publicly (tax) funded services, while the private acute sector is a mix of church based not-for-profit operators as well as a handful of significant for-profit operators. Private hospitals, although only catering for approximately one third of total available hospital beds are responsible for nearly sixty per cent of surgical admissions.

Add to the above complexities similar convolutions for aged care, allied health and pharmacy and medications and it is easy to begin to appreciate why this fragmentation results in access issues for patients, disaggregation of clinical information and a health system which is by design incapable of delivering anything other than episodic care.
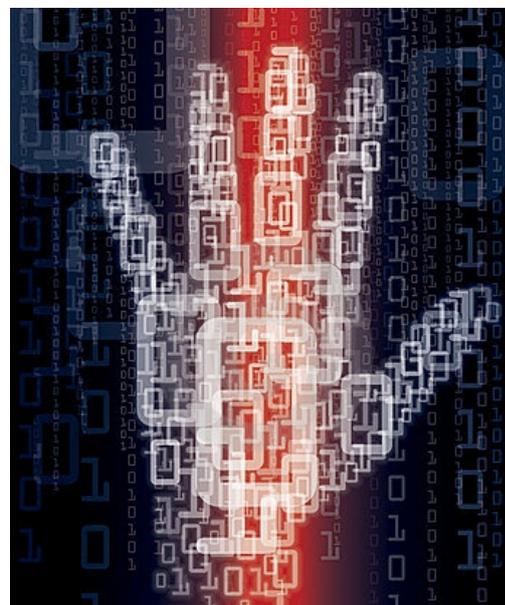
Multidisciplinary collaboration inherently requires that the participants (including patients) share quality information that is relevant. Information technology is a primary enabler of the sharing of timely and structured health information, however due to the fragmentation described above, the benefits of information sharing are not currently direct enough to encourage broad participation. This is because the sharing of clinical information typically benefits those down-stream in the service delivery chain.

Actions

Provide either regulatory incentives or direct financial incentives for healthcare providers to be active participants in the continuity of care of patients including the production and consumption of clinical information used to collaborate along that continuum.

Similar to the argument for telehealth, undertake macro-economic modelling of the long-term economic benefits of incentivising the sharing of information for multi-disciplinary / multi-provider collaboration.

b) Education for Health Professionals

Information technology and the role of health informatics in the delivery of healthcare must be a core element of the education process within medical schools and in the work of the Specialist Colleges. This will require a managed and coordinated effort supported by repositories of information and 'wisdom networks' that encourage the engagement of clinicians, nurses and administrators to become technology savvy and which are driven by 'digital advocates' who encourage technology based collaboration.

Actions

i.   Encourage health informatics and ICT training across all health professions

ii. Facilitate multi-disciplinary collaboration and innovation (across health-care professionals, sectors, agencies and providers) that focuses on using data to build evidence based service approaches

iii. Develop new generation Big Data and analytics tools to analyse data from disparate systems

iv. Actively encourage technology suppliers to develop new approaches to engage in developing evidence based models and in this context, encourage the development of cloud based resources that can be shared

Suzanne Roche, Australia 3.0 Health Stream Leader

c) Apps development and use

Health applications have enormous potential to support clinicians improve the health practices and management of their patients and to support health consumers to take a more proactive role in their own health care. However with the plethora of health applications in the market there is little if any assurance of the authenticity, quality or value of what is available. A serious adverse experience or consequence as a result of a 'rogue' application risks undermining the powerful potential of smart health application products and services.

Actions

   i.   Develop a governance framework to qualify the credentials of health applications for clinical and consumer use.

   ii.   Require that 'credentialed' applications are aligned with appropriate standards

   iii.   Develop an 'Exchange' of 'certified' applications, within an appropriate risk framework, that can be recommended by medical practitioners without compromise to their professional, ethical and legal standing.

   iv.   As appropriate, require that 'certified' applications can be integrated with the PCEHR

d) Educating and Empowering Consumers of Health Services

With health care expenditure increasing and with little prospect of cost containment under current service models, consumers need to:

- be better educated in f how technology can be used to inform their health service decisions (for example knowing how to seek out the most appropriate service to meet their need and avoiding, where possible, the most costly service option); and

- have access to information which they have confidence to interpret and use.

Actions

   i.   Provide education to support citizen empowerment in health management, including through the use of digital and mobile technologies

   ii.   Facilitate the development, publication and maintenance of evidence based health responses to FAQ's in public forums. This includes guidance on how, when and where to engage with the health system and to conduct a consultation with a doctor, knowing what information the doctor would like to know and why.

It is strongly recommended that all the recommendations are supported and verified by a well-resourced and unbiased research program that supports local universities.

What is the Australia 3.0 Communiqué

Australia 3.0 leverages the collective wisdom of an invitation only grouping of some of Australia's leading Technology and Innovation thinkers and most experienced professionals to develop insight into the pivotal issues that will impact Australia's ability to succeed in the global digital economy.

A three month long dialogue focussed around the opportunities, threats and systemic barriers for Australia's digital economic future culminates in the endorsement of a series of targeted communiqués by a plenary gathering of over 300 of Australia's most eminent IT industry leaders.

Australia 3.0 is one of the Industry's peak thought leadership events hosted by the Pearcey Foundation, the Australian Computer Society (ACS), the Australian Information Industry Association (AIIA), CSIRO, NICTA, and the Federal Department of Innovation.

The Australia 3.0 2013 communiqué has been developed, refined and formally endorsed through the Australia 3.0 process online and offline culminating in endorsement and formal launch at a plenary forum operating as part of the 2013 iAwards ceremonies held at Crown Casino, Melbourne on August 8th.

Australian Success in the Digital Economy

The advent of the global Digital Economy should be seen as nothing less significant than the Industrial Revolution or the introduction of electricity. Australia is comparatively well placed to excel in the Digital Economy as a result of our knowledge capable workforce, natural innovative mindset, and relative economic strengths coming out of the GFC.

The Digital Economy can be seen in terms of economic efficiencies, in terms of trade, or in productivity terms.

It has been said that, rounded for error, 100% of humanity's productivity increases have come from Innovation, and 0% from regulation. The rate of adoption - embracing or missing - this opportunity for Digital Innovation will set up Australia's wealth for the next major wave of global economic development.

Anything that can be done should be done to lift the rate of Digital Innovation across the whole economy.

Now is the most cost effective time to embrace innovation!
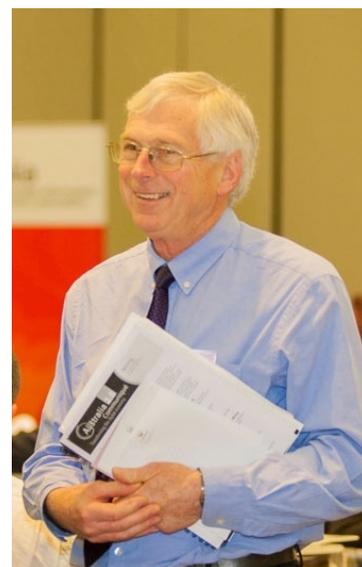
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Australia 3.0 Forum Guest Speakers

Dr David Williams – Group Executive, Information Sciences, CSIRO

Dr Hugh Durrant-Whyte – Chief Executive Officer, NICTA

Rosemary Sinclair – Board Member, Telecommunications Universal Service Management Agency (TUSMA)

Dr Ted Pretty – Managing Director & CEO, Hills Holdings Limited

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Further Information

If you would like to get involved in Australia 3.0 please visit the website and subscribe for updates or email us

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2013 Australia 3.0 Report

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