



Transforming Government

Hello, and welcome to the December 2009 edition of The Infonomics Letter.

Few readers of The Infonomics Letter would doubt that information technology is an enabler to new products, services and ways of doing business. We have witnessed the transition of information technology from its early pure computational role in science and engineering, to its automation role where it provided speed and volume for repetitive process such as accounting and payroll, to its enabling role where it was the vehicle for new approaches to familiar activities such as payment of bills and stock control.

With the emergence of the Internet and ever greater communications bandwidth and reliability, we have seen information technology become firmly embedded in the role of information repository. Newer advances in use of the Internet have seen several trends – social networking, cloud computing, software-as-a-service and value-chain integration.

The latter term, "Value Chain Integration", may cause a raised eyebrow. What does it mean? A definition offered on the Internet by Bitpipe.com suggests it is: *"The process in which multiple enterprises within a shared market cooperatively plan, implement, and manage (electronically and physically) the flow of goods, services, and information from point of origin to point of consumption in a manner that increases customer-perceived value and optimizes the efficiency of the chain, creating competitive advantage for all stakeholders involved"*.

Put another way, Value Chain Integration means exploiting information technology and the Internet to fundamentally redesign the way that business operates, making it more effective, efficient and acceptable. It's an attractive proposition, but as history has shown, it's not easy to get there.

Where the private sector has been integrating value chains for years, and is continuing to find new opportunity in this field, there has been relatively little integration in government value chains – despite significant investment in some areas, such as health.

A new report prepared by the Australia's Government 2.0 Taskforce explores the prospective use of Internet technology to transform the interaction between citizens and government, and the use of government information. In essence, it's a discussion of Value Chain Integration in a government context. This month, we look at some of the issues and opportunities arising from the report.

Kind regards,
Mark Toomey
29 December 2009.

Australia's Government 2.0 Taskforce Report

The Government 2.0 Task Force (<http://gov2.net.au>) was launched in June 2009, to advise and assist the Government to:

- make government information more accessible and usable — to establish a pro-disclosure culture around non-sensitive public sector information;
- make government more consultative, participatory and transparent — to maximise the extent to which government utilises the views, knowledge and resources of the general community;
- build a culture of online innovation within Government — to ensure that government is receptive to the possibilities created by new collaborative technologies and uses them to advance its ambition to continually improve the way it operates;
- promote collaboration across agencies with respect to online and information initiatives — to ensure that efficiencies, innovations, knowledge and enthusiasm are shared on a platform of open standards; and
- identify and/or trial initiatives that may achieve or demonstrate how to accomplish the above objectives.

In a very important recognition of the challenges, the introductory blog entry by taskforce leader Nicholas Gruen quotes Tim Davies (who describes himself as "... an independent consultant and researcher from the UK, writing about young people's participation, social media and social change"). Davies wrote in his blog: *"Working with front-line professionals in local government over the last couple of months, I've been coming to see that:*

- *The big challenges are not about technology – they are about the content and the process of mobilisation and communication.*
- *When it comes to technology we've not got one big challenge we've got 100s of small challenges – and we've got no systematic way of dealing with them.*

When all these small challenges stack up – the chance of staff members or teams in local or national government organisations and agencies being able to effectively engage with online-enabled policy making shrinks and shrinks".

The contrast is stark, and underlines a fundamental issue for Government 2.0: Achieving Government 2.0 involves large scale change, and an overriding element of culture in government appears constantly to be avoidance of change.

The draft report was released on 7 December, with a 9 day comment period, and the final report was delivered on 22 December. What happens next is up to the government. There were three matters in the draft report that I regarded as needing further exploration:

- The need and opportunity to drive radical transformation of the machinery of government by using modern (such as Web 2.0) technologies to enable greater efficiency and effectiveness;
- The opportunity inherent in the NBN (Australia's new National Broadband Network) to provide a vastly superior technology platform on which to deliver Government 2.0 capabilities; and
- The critical need to govern transformation in an effective and efficient manner.

Radical Transformation of Government

Internet based technologies are a major enabler to radical transformation of government, and no discussion of advanced government use of web-enabled technologies can be considered complete without a comprehensive discussion of radical transformation to a true "connected government" scenario. The internet itself provides the communications interconnectivity that is essential to abstracting the data and primitive functions that currently exist in subtly inconsistent, frequently duplicate and redundant instances within individual agencies, and should be transformed into singular, high quality and secure resources to which agencies obtain controlled access. Leveraging such connectivity and the opportunity for citizen access, many of the presently complex interactions between citizens (and corporations) and government should be greatly simplified.

Efficiency and effectiveness of the machinery of government in Australia is substantially hampered by the historical and continuing tendency of agencies to operate as entirely separate entities. The performance of agencies in sharing even the most basic data such as names and addresses is lamentably weak. As intimated in the 24 August 2009 submission to the Taskforce by the Spatial Industries Business Association¹, there is minimal sharing between agencies of basic name and address data in a common data repository. By comparison, Singapore has enjoyed the advantages of a single name and address database used by all government agencies since 1986.

The 2008 report by Sir Peter Gershon on the Australian Government's use of information technology also makes it clear that the behaviour of government agencies has tended to maintaining and entrenching unique processes and data structures

rather than actively seeking to standardise and consolidate. This is reflected in the tendency of agencies to extensively customise commercial-off-the-shelf packages, rather than adopting the standard functionality of these packages.

The draft report of the Taskforce includes recognition of key issues inhibiting the shift to radical transformation of the machinery of government. However, it offers no effective solution to these issues – relying instead on techniques that have in the past proven of marginal effectiveness at best, including the appointment of a "lead agency" to "provide guidelines and support". What is required is a much stronger and direct lever, whereby agency heads are directly and strongly incentivised to act, to find and realise opportunities to achieve efficient, effective government through use of modern technologies to simplify and extend accessibility of government services.

Superior Technology Platform

The government's decision to build an entirely new National Broadband Network presents a once-in-a-lifetime opportunity for Australia to leapfrog much of what is wrong with the Internet of today.

There can be little doubt that the Internet has exceeded the wildest dreams of its original creators. This growth has exposed flaws in the design that while benign in its original manifestation, are now serious problems with the Internet. Designed originally with a minimum of controls and auditability, the Internet is now beset by widespread issues of online criminality, ranging from the spreading of viruses, to identity theft, copyright breach and direct attacks against the content, functionality and availability of systems owned and operated by organisations in all sectors of the economy.

Retrofitting the Australian instance of the Internet to make it a more secure and safe place, in which criminal behaviour is less possible without detection and a viable means and basis for prosecution of offenders, is a daunting task, and probably unachievable without the voluntary cooperation of millions of internet users. However, the intention to roll out the NBN presents the opportunity for the "New Internet" to be built as a secure system from the outset. No new technology is required for this to happen. According to Cisco², the readily available Multiprotocol Label Switching (MPLS) technology "enables Enterprises and Service Providers to build next-generation intelligent networks that deliver a wide variety of advanced, value-added services over a single infrastructure". Cisco goes on to say that "integration of MPLS application components, including Layer 3 VPNs, Layer 2 VPNs, Traffic

¹<http://gov2.net.au/files/2009/09/Spatial-Industries-Business-Association-Submission.pdf>

²http://www.cisco.com/en/US/products/ps6557/products_io_s_technology_home.html

Engineering, QoS, GMPLS, and IPV6 enable the development of highly efficient, scalable, and secure networks”.

Deployment of such technology as an integral part of the NBN has the potential to endow Australia's Internet with a greatly improved level of security for private, commercial and government use of web, web 2.0 and later generation services. If done promptly and as part of the NBN rollout, it would also put Australia at the forefront of providing internet security to its population. It would make Australia a more attractive place to do business for organisations that make extensive use of the Internet and would remove much of the inhibition currently prevailing in some circles – and particularly the Australian Government.

There may be a negative outcome for certain organisations resulting from such a move. A substantially secure Australian NBN may reduce the need for individual end-users to invest in expensive local security measures, such as anti-virus software and firewalls. However, it should be expected that the loss of economic value (much of which would be manifest as revenue reductions for offshore companies in any case) would be greatly offset by the economic value that would be created by a community that feels safer and is more inclined to use the internet.

Governing Transformation

The Gershon report into the Australian Government's use of information technology stated categorically that, at the time of the report, the government had weak governance of IT. In the first two recommendations, the Gershon Report made clear the vital need for Australia to improve pan-government governance of IT and agency governance of IT.

Gershon's findings are derived from his own sound understanding of the recommendations in AS 8015 and its international sibling, ISO 38500. These standards clearly focus on the use of IT as the primary subject of concern, emphasising that a key cause of failure in IT is the over-emphasis on technical matters and insufficient attention to the wider considerations of business use, which include the development and implementation of appropriate business models and ensuring that there is adequate understanding of and attention to the human behaviour aspects of all those involved in, or affected by the use of IT.

To date, the actions taken in respect of the Gershon Report, as evidenced in press reports and information provided on the AGIMO website, give no confidence that the first two Gershon recommendations (Improve pan-government governance of IT and Improve Agency level governance of IT) have been properly understood, let alone adequately actioned. Any advance toward a true Government 2.0 environment, complete with the radical transformation discussed above, will require that these recommendations be

properly understood and that positive action is taken to ensure that the governance of IT use is effective at pan-government and agency levels.

In both cases, the critical consideration is that the governance must focus on the use of IT as an enabler to change – not merely on the IT itself. At a pan-government, level, it is essential that government leaders set the agenda for IT use in the context of clear and definite plans to overhaul the machinery of government, making government more efficient, affective, transparent and accessible. These are not plans that can be created, let alone delivered, from a pure IT perspective. They can only be made by properly informed business leaders who are familiar with the full business context and constraints, and who can make binding pan-government decisions and commitments. They are not plans that can be formulated at low levels and merely overseen by those at the top – to be meaningful, they must be plans that are formulated and passionately driven from the top of government, by responsible ministers and by the most senior bureaucrats. At an agency level, the governance arrangements must ensure that the top level bureaucrats are in control of the agenda for service development and improvement, which drives the use of IT, including the agenda that has been agreed for pan-government change.

Experience in Singapore and the United States shows that the extent of change that can be achieved is dependent not only on the commitment and vision of the government leaders, but also on the availability of relevant resources to help develop the detailed plans for standardisation, consolidation and transformation in the machinery of government. Critical in this context is the development of reference models within an Enterprise Architecture for government, where agencies can be channelled toward conformance to the reference models and thus to greater levels of standardisation. An Enterprise Architecture should provide a clear understanding of the entire business model – people, process, organisation (including geographic aspects when relevant), controls and technology systems. Unfortunately, perusal of the AGIMO website reveals that while the "Australian Government Architecture"³ (Version 1 published June 2007) includes topics that are essential to an Enterprise Architecture, key topics are incomplete. It is difficult to imagine how any agency could benefit from such a document in planning transformational change, in its current state.

Compare the Australian⁴ Government's description of the Australian Government Architecture with the Singapore⁵ Government's treatment of the issue:

³ http://www.finance.gov.au/publications/australian-government-architecture-reference-models/docs/AGA_Reference_Models_Version_1.0.pdf

⁴ <http://www.finance.gov.au/publications/australian-government-architecture-reference-models/index.html>

Australian Government Architecture Reference Models (v1.0)

Publication Summary

The Australian Government Architecture (AGA) is intended to assist in the delivery of more consistent and cohesive services to citizens and support the more cost-effective delivery of Information and Communications Technology (ICT) services by government, providing a framework that:

- provides a common language for agencies involved in the delivery of cross-agency services;
- supports the identification of duplicate, re-usable and sharable services;
- provides a basis for the objective review of ICT investment by government; and,
- enables more cost-effective and timely delivery of ICT services through a repository of standards, principles and templates that assist in the design and delivery of ICT capability and, in turn, business services to citizens.

This AGA Reference Models document describes the first release (Version 1.0) of the reference models that will form the basis of a common language between agencies and structure a repository of architectural artefacts (including standards, guidelines, designs and solutions) that may be utilised by agencies to deliver an increasing range of WofG services.

The AGA Reference Models are managed by the Department of Finance and Administration, through AGIMO, in consultation with the Chief Information Officer Committee and the Australian Government Services Architecture Working Group.

Version 1.0 of the reference models was endorsed by the Chief Information Officer Committee on 5 April 2007, and contains the Service, Data and Technical Reference Models. The Performance and Business Reference Models will be progressively developed and released in future versions.

One is left wondering what has happened since the current document was approved on 5 April 2007. When will we see the Performance and Business Reference Models – tools that are vital to rationalising and standardising the machinery of government?

Singapore Government Enterprise Architecture (SGEA)

SGEA is a set of blueprints comprising the Business Architecture (BA), Information Architecture (IA), Solution Architecture (SA) and Technical Architecture (TA) of the Singapore government. It provides a holistic view of business functions, common data standards, and shared ICT systems and infrastructure.

This programme facilitates the identification of opportunities for collaboration among agencies, encouraging greater sharing of data, systems and processes across agencies.

Reference Models

The SGEA has four developed reference models which are listed below:

1. Business Reference Model (BRM) - The BRM addresses the BA, and describes the Lines of Businesses and Business Functions performed by different government agencies.
2. Data Reference Model (DRM) - The DRM addresses the IA. It specifies the data definitions for data elements that are commonly used across government.
3. Solution Reference Model (SRM) - The SRM addresses the SA, and describes the systems and service components that can be shared across government.
4. Technical Reference Model (TRM) - The TRM is addressed by the Service-wide Technical Architecture (SWTA) established since 2002.

Methodology for Agency Enterprise Architecture (MAGENTA)

MAGENTA has been released to guide government agencies in Enterprise Architecture (EA) development with the use of the reference models. It provides detailed steps to develop an EA, templates for information capture, scenarios and best practices.

Note the more direct and specific language of the Singapore documents, which are considerably more advanced in their development and deployment than their Australian counterparts. A useful reference discussing the approach employed in Singapore is "Advances in Government Enterprise Architecture" By Pallab Saha⁶.

To encourage substantial and rapid progress toward Government 2.0, it is essential that the Australian Government come to terms with the fundamental messages in AS 8015 and ISO 38500, and that government leaders and agencies fully adopt and exhibit strong adherence to the principles defined in the standards. In particular, the Australian Government must:

- ensure that the use of IT is directed and controlled from the top – by those responsible for setting and implementing policy and running the machinery of government;
- ensure that governance of IT is focused on the achievement of business outcomes and government objectives, and not merely on the mechanics of implementing and operating information technology;
- direct agency heads to explicitly plan rationalisation and optimisation of the machinery of government, using IT and particularly using technologies that maximise citizen participation at all practical levels of government activity;
- establish, adopt and mandate comprehensive robust frameworks to assist in and promote effective planning of IT enabled transformational change, including advances toward the Government 2.0 scenario;

⁵<http://www.ida.gov.sg/Programmes/20060419144239.aspx?getPagetype=34>

⁶<http://www.amazon.com/gp/search?index=books&linkCode=qs&keywords=160566068X>

- ruthlessly examine and filter propositions for investment in IT to ensure that they are complete business transformation initiatives that deliver well defined valuable goals in line with the agreed agenda for effective and efficient government operation, and the Government 2.0 vision;
- develop policies that explicitly give life to the six principles in AS 8015, directing government leaders at all levels regarding the behaviour they are to exhibit in making decisions regarding business use of and investment in information technology.

The Final Report

The final report was delivered to the ministers who commissioned the taskforce on 22 December 2009, just six elapsed days from the close of comments. It is difficult to tell whether, and to what extent the comments submitted by any parties were taken into account. There has been substantial work done on format and sequence, though the recommendations themselves are consistent with the draft report.

There is a clear recognition of the need for leadership to change public sector culture, with cross-agency collaboration being one of the explicit targets of this change. The combination of leadership, policy and governance is now described as one of three pillars essential for a successful move to Government 2.0. However, the recommendation for a lead agency to provide that leadership, while much stronger, is insufficient. On page 13, the report references the leadership provided in the US by the President himself, and in the Australian context, no lesser form of leadership can be seen as sufficient. Australia's migration into the world of Government 2.0, with all of its associated opening of access to information and rationalisation of the machinery of government must be lead and driven by none other than the Prime Minister, and through him, the ministers of the government and the permanent heads of each and every government agency.

The report calls for a stronger, more coordinated approach to governance, and closely links governance to the requirement for leadership and additional policy guidance. It recognises that: "there has been limited leadership to drive coordinated action, particularly at the federal level" and: "As yet there is no coordinated governance framework to underpin individual agency efforts". These statements are extraordinary, in that they echo the findings of Sir Peter Gershon in his 2008 report, which stated bluntly that Australian Government had (has) weak governance of IT. There is a definite inconsistency between these statements and the expectation that, a year after the Gershon recommendations were fully accepted, governance of IT use in the Australian Government should have been greatly improved!

The report claims to provide a framework for governance, but does not define any detail of that framework. It does, however, summarise the key conclusion of a taskforce-initiated project on "Embedding the 2.0 agenda in the APS". That project concludes that as the primary challenges are cultural and organisational, rather than technological (which we know is often the case in effective, efficient and acceptable use of IT), the leadership should come from the Department of Prime Minister and Cabinet, rather than from a more technically oriented agency.

The separate report on "Embedding the 2.0 agenda in the APS" is focused on governance, but makes no reference to AS 8015 or ISO 38500. Notwithstanding, it does reflect at least a base understanding of the essential Responsibility Principle, by saying that: *"single point accountability for this stage in the transformation process should ideally rest with the Secretary of the Department of Prime Minister and Cabinet"*.

Where to next for Government 2.0?

Ultimately, the Government 2.0 Taskforce Report must be seen as a stake in the ground – a marker for a key transition point in the process of modernising the government of the nation. It highlights some, but not all of the opportunity – and in this context it must be said that the full extent of the opportunity cannot even be imagined at this point in time. Most importantly, it highlights that the change is not merely one of technology – rather it is one of people, process, structure and technology – the very same elements that were identified by Harold Leavitt in his 1965 discussions of organisational change.

Beyond anything, the taskforce report emphasises that leadership is critical to this change, and that the essential leadership requirement is one that focuses on the full spectrum of change.

Thus, while the report says little about the detail of the governance arrangements that are essential for Government 2.0, it clearly identifies the context for governance that aligns precisely with ISO 38500!

Perhaps the Australian Government will now join the dots between the Gershon Review and the Government 2.0 Taskforce, and take strong action to implement an effective regime for governance of its use of IT as a tool of business.

Buy your (boss an) Elephant book

What a great "welcome to 2010" present for your boss, project sponsor, CIO or CEO! Waltzing with the Elephant is designed to help them direct and control IT as a tool of business, especially in the context of organisational change as discussed in the Government 2.0 report.

Buy it at [The Infonomics Shop](#) or see the [Infonomics web site](#).