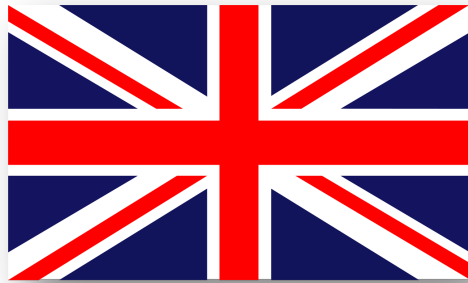# CAPAM 2014 Biennial Conference

Putrajaya, Malaysia. October 2014

_____

A Tale of Two Countries: the Digital Disruption of Government

Jerry Fishenden and Marie Johnson

_____

Introduction

Why do governments seem to struggle so much to use technology well? Barely a week goes by without a government somewhere in the world being berated for another massive "*IT project*" failure. Is it simply that public sector failures are more visible than those of the private sector – or is there a more significant problem behind these apparently endless headlines?

Politicians have understood for several decades that technology has the potential to help reinvent and improve our public services. In the same timeframe the private sector has seen many businesses completely re-imagined – the likes of Kodak and Blockbuster have been displaced by new market entrants, and we have seen the birth of entirely new services such as Google, iTunes, Facebook, Netflix, Twitter and Spotify. Yet in the public sector progress has been slow and often publicly humiliating. This is not through any lack of investment: an estimated US$3 trillion was spent during the first decade of the 21st century on government information systems. Yet 60% to 80% of "*e-government*" projects have failed in some way, leading to "*a massive wastage of financial, human and political resources, and an inability to deliver the potential benefits of e-government to its beneficiaries*"[1].

It's almost as if the public sector is stuck in what could be called "*the Blockbuster age*" – constantly trying to make improvements within the mindset of an increasingly obsolete business model, optimising the time in which boxes of DVDs get shipped to stores, offering loyalty discounts, shuffling management teams and consultants, and re-arranging the shop window and the shelving displays whilst in the background entirely new ways of operating, such as Netflix and iTunes, have emerged to displace them. In the private sector the dynamics of the open marketplace ensure that innovators with improved business models, processes and services rise to the top, displacing the out of touch, stale and out-dated. Yet the public sector, with its natural monopoly on many essential services, is shielded from such dynamics: regardless of how well or badly it

performs, it is guaranteed taxpayer funding. As a consequence it continues with many processes, services and organisational structures that are increasingly out-dated, self-serving and bureaucratic.

To understand this gap between political aspiration and reality – and, more importantly, how it can begin to be fixed – we explore the experience of two Parliamentary-system governments and their attempts to use technology to reform and modernise their services since the 1990s. The United Kingdom and Australia offer interesting insights into administrations that have long seen the opportunity to be seized, but which have repeatedly struggled to deliver the scale of improvement required in the way their public services are designed, operated and maintained.

This is our tale of two countries.

The (missed) opportunity

As long ago as 1998, a UK Parliamentary report identified that the successful adoption of modern technology was dependent on two critical factors:

> *Firstly, organisations have understood and focused on their customers' requirements – ranging from purchasing goods in the supermarket to information on which to base key financial or business decisions. Secondly, and invisible to their customers, organisations have streamlined and redesigned their operational processes and their organisational structures, reducing duplication and waste. Similar processes have generally been brought within the same management framework and merged to remove overlap.*

The report also described the state of play in Australia:

> *Australia has a very active programme, and in recent years has taken a lead in a number of aspects of the use of IT at all levels of government. For example, Australia pioneered the use of computer 'data matching', where Department of Social Security records are matched against those of the Australian Tax Office and the Departments of Veterans Affairs, Education Employment and Training, and Housing and Regional Development to combat benefit fraud – resulting in savings of up to $200M per year. The Federal Government is also instigating a major overhaul of its civil service. The Public Service Bill and Public Employment (Consequential and Transitional) Reform Bill currently before the Australian Parliament are part of a plan to transform the delivery of government services by devolving these functions from departments to newly formed executive agencies, headed by CEOs answerable directly to ministers. Thus, the federal government has a timely opportunity to further exploit the potential of ICT to improve the efficiency and quality of its operations.*

It's small wonder the opportunity to modernise and streamline organisations, and their processes and services, was seized upon by politicians. Here was apparently the political Holy Grail. Finally it seemed possible to achieve something that had not previously been possible: to improve the quality, relevance and timeliness of public services by redesigning them around citizens' needs whilst simultaneously doing so without the need for additional taxes. Better than that – the potential existed to take costs out of old manual processes, administration and bureaucracy, and to save money. And so the idea of better public services at less cost, enabled by technology, was born.

That 1998 paper indicates a widespread realisation of the opportunities on offer – and that governments intended to take advantage of technology to overhaul the way they designed and operated public services. However, the idea of "*devolving functions from departments to executive agencies*" suggests that instead of re-thinking the way government provided services, existing ways of doing things were to be shuffled around, with some pushed away from the centre to smaller agencies. Not only did this effectively freeze the way things were done at a moment in time, but also, by displacing services into a myriad of new organisations, it also created multiple duplications of the same administrative and management costs inside each resulting agency.

As "*Digitizing Government*"[2] discusses, taking advantage of what technology now makes possible requires a more fundamental appraisal of how government can best be designed in the digital age. Not so much the usual question of "*How do we use technology to polish and improve what is already there*?" so much as one of "*How best could government achieve its outcomes if we were to design it now*?". Rather than oscillating between centralised versus outsourced models, a more fundamental opportunity exists: to re-imagine the way government operates, and hence to rethink the machinery of government around a digital-era model that improves public services, strengthens civil society and stimulates the economy.

Technology opens up policy options not previously possible or even thought of. It enables government to be rebuilt not around its own internal hierarchical and management needs, but around citizens and their experiences and needs for public services. It's the opportunity to remove a lot of unnecessary and complex bureaucracy and form-filling (whether done on paper or online), and also to provide real-time insight into performance and hence the potential to innovate and improve policy and operations. This is the real opportunity: not the production of websites and the digital preservation of existing transactions, but a re-imagined operating model clustered around the needs of citizens and businesses. This opportunity must be seen and measured in the context of policy and service delivery outcomes: however, both UK and Australian audit reports and capability reviews over the past decades show instead a consistent story around opportunity costs and opportunities lost.

The problem

The UK Experience

The gap between the potential use of technology – to reform and improve organisations and services – and the reality is disappointing. All too often technology has been applied merely to automate the status quo, regardless of how inefficient it is. Far from improving services, technology has often been used to fossilise them and all their pre-internet inefficiencies at a moment in time. This problem has been well understood since the 1990s, with the 1996 "Government Direct"[3] paper stating hat:

> *The Government is determined that the methods of direct service delivery which information technology is now making possible, should be harnessed in the UK in order*

to: provide better and more efficient services to businesses and to citizens; improve the efficiency and openness of government administration; and secure substantial cost savings for the taxpayer.'

Yet within a few years, a research paper by the Parliamentary Office of Science and Technology (POST)[4] warned that:

Current policy is ... in effect 'freezing' existing departmental demarcations into the system and could seriously curtail the ability of Government to engage in holistic re-engineering for many years.

The report also recognised:

While individual Departments and Agencies have made progress in developing customer focus and in initiating process reviews, the techniques have not so far been applied 'holistically' across Government.

And in a footnote observed:

It is perhaps because of this that Government has not tended to reap benefits on anything like the same scale as the private sector.

It's worth highlighting how often the same well-intentioned political rhetoric has been used over the years, but without any sustained success in bridging the gap between such aspiration and its practical implementation on the ground:

Year	UK Policy	Source
1996	'[IT will] provide better and more efficient services to businesses and to citizens, improve the efficiency and openness of government administration, and secure substantial cost savings for the taxpayer.'	Government: Conservative. Source: Government Direct.
1999	'[IT will help us] make sure that public service users, not providers, are the focus, by matching services more closely to people's lives … [and] …deliver public services that are high quality and efficient.'	Government: Labour. Source: Modernising Government.
2009	'[IT will] allow us to give citizens what they now demand: public services responsive to their needs and driven by them. It provides us with the means to deliver public services in a way that maintains their quality but brings down their cost.'	Government: Labour. Source: Putting the Frontline First: Smarter Government.
2011	'[IT will enable us to] deliver better public services for less cost. ICT can release savings by increasing public sector productivity and efficiency … [and] will enable the delivery of public services in very different ways to the past.'	Government: Coalition. Source: Government ICT Strategy.
2013	'technology can be a powerful tool and reshape how government and citizens interact with each other. We must see digital government as a way of empowering people – service users and public sector employees, citizens and consumers – and enabling cost reduction in the process.'	Labour Party announcement of a Digital Government review – 'Digital Britain 2015'.

Table 1: Comparison of UK Policy Objectives, 1996-2013

More recently the creation of the Government Digital Service (GDS) is helping move the UK into the era of digital services. However, the UK public sector has yet to develop and sustain at scale the necessary digital era organisational structures, culture, maturity and management capability to achieve the long-desired public service renaissance foreseen by politicians since at least the early 1990s. Part of the problem lies in the way that technology has historically been handled, often pushed away from the core of the senior levels of the civil service and certainly well away from becoming an intrinsic part of policymaking and the design of public services. This is perhaps best illustrated by the analysis of Tony Blair's incoming Labour government

of 1997. It blamed the decentralized approach to technology as the core of the problem – believing that the narrow focus on the parochial needs of individual departments had resulted in benefits for government as a whole being overlooked: "*As a result, we have incompatible systems and services which are not integrated.*"[5]

However, this was a mirror image of the reality: the technology was merely a reflection of the fragmented and vertically organised functions of the multitude of government departments and agencies and the services they provided. To blame the technology was to start in the wrong place: what needed to be addressed was the much bigger problem of how to reorientate public services around citizens – and to fix the out-dated and often arbitrary organisational structures, management silos and fragmented services of the public sector. Instead, technology itself became the focus in isolation – leading to a series of media headlines, including one in 2010 that stated just ten of the administration's "*computer blunders*" had cost £26bn[6].

The 2000 government paper "*Successful IT: Modernising Government in Action*"[7] provided a review of "*major government IT projects*" and hoped to "*improve performance and avoid the mistakes of the past*". Yet the focus again was "*IT*" as if it existed in splendid isolation from public service management: "*In the past, Government IT projects have too often missed delivery dates, run over budget or failed to fulfil requirements. This review was set up to improve the way Government handles IT projects.*" Importantly however it also recognised the shortcomings of this approach and came to the conclusion that "*A change of approach is needed. Rather than think of IT projects, the public sector needs to think in terms of projects to change the way government works, of which new IT is an important part.*" Despite this recognition, there is little evidence to be found that any substantive improvements were made as a result.

In 2009, similar objectives were set out in a report from the Department for Media, Culture and Sport (DCMS) and the Department for Business, Innovation and Skills (BIS) – entitled "*Digital Britain*"[8]. Its version of that 2000 recognition of the problem of mistakenly thinking of "*IT projects*" was expressed as "*Government will need to become genuinely 'of the web', not simply 'on the web'. That means designing new services and transactions around the web platform, rather than simply adapting paper based, analogue, processes ... Bringing about this scale of change will require significant leadership and focus and a willingness to put this reform at the heart of Government activity as opposed to tacking it onto the side of existing ways of working.*"

The Australian Experience

The phenomenon of talking about "*IT projects*" and attempting to tackle the wrong problem is also observed in Australia. Numerous online and e-government strategies lacked the most important focus: that of a fundamental service transformation centred on citizens' needs and experience.

In the lead up to the Australian Federal Election in 2013, the Liberal National Party Coalition in Opposition released its policy for "*E-Government and the Digital Economy*"[9]. It recognised that in the digital era

government has not leveraged technology as a productivity driver or as a policy lever. Neither has it kept pace with the use and adoption of technology across society, nor the innovation in new models of engagement. Whilst the now government policy appears to be "*directional*" and foreshadows a far more strategic approach, the lessons from the past decade and from other domains indicate that it does not go far enough to meet the challenges.

It's instructive to compare the objectives and approach of the "*Coalition's 2013 policy for E-Government and Digital Economy*" to the objectives and approach of the "*Government Online Strategy 2000*": what has changed in the last 14 years?

The *"Government Online Strategy 2000"* spoke about "*online action plans*", putting all "*appropriate*" services online by 2001, delivering all "*appropriate*" services electronically by 2001, ensuring the online availability of printed forms and the desirability of "*online forms*", and articulated the concept of "*integrated services*". Enablers such as authentication and metadata standards were called out, as well as the groundbreaking achievements of the delivery of the Australian Business Number (ABN) and the successful multi-jurisdictional online platform to business, the Business Entry Point (BEP)[10]. Despite the progress that was made, a check of any government website soon reveals listings of many hundreds of PDF forms. An inventory across government would measure thousands of forms. And peering inside agencies would soon reveal an unspeakable treasure trove of all sorts of forms lurking on internal networks.

Three essential components were missing from the "*Government Online Strategy 2000*". Firstly, meaningful outcome-based targets were absent: the Strategy was heavily qualified by evasive references such as "*appropriate'*, "*pragmatic*" and "*agency based approach*". Secondly, citizen centric was defined in terms of the agency e.g. "*agency's clients*". There is nothing citizen centric about having dozens of agencies each having their individual specific views of the citizen. Of course, "*client centric*" is not the same thing as "*client experience*": just ask the clients (citizens). And thirdly, and perhaps most importantly, it was not about transformation – it explicitly ruled out replacing services or channels. The objective was to *"…deliver all appropriate Commonwealth services electronically…complementing – not replacing – existing written, telephone, fax and counter services.*" Doing so would simply add another silo service channel, increase costs and hence fail to deliver any meaningful benefits.

The "*Government Online Strategy 2000*" vision of "*a seamless national approach to the provision of online services…[where]…a user of these services should not need to understand how government is structured…*" remains a noble but as yet unrealized vision. For all the efforts, the question is "*Why*?". Those initiatives that were successful and enduring – the Australian Business Number, the Business Entry Point and later Vanguard and Standard Business Reporting – were driven by a political and economic agenda. These initiatives took a whole of government – not agency specific – multi-disciplinary delivery approach and were greenfields. They were new and transformative business models; and importantly, they were based on

metrics and analysis to demonstrate the economic impact and benefit – the target was to reduce the estimated AUD $17 billion per year red tape impact on the Australian economy[11].

One area of concern in the Coalition's "*2013 policy for E-Government and Digital Economy*" – and similar strategies in other jurisdictions – is an apparent ambiguity between "*digital*" and "*ICT*". It is essential that the difference between "*digital transformation strategies*" and "*ICT strategies*" is understood. As currently articulated, the policy needs to better differentiate between "*ICT Strategy*" and "*Digital First*". Though clearly related, "*digital*" and "ICT" are different concepts and the accountabilities, objectives and measures of success are different.

"*Digital*" spans a wide brief, including the transformation of the organisational model and culture, radical process change, accountabilities for citizens' experience, new models of service delivery, real-time feedback, tangible operational efficiencies, measurable business value, and the use of data driven insight to improve and inform policy formulation. ICT strategies partly enable this transformation – but in the legacy environment, siloed approaches can impede it.

Looking at the two strategies literally side by side highlights that there still does not appear to be a whole-of-government focus on strategic transformation. After 14 years, the strategic approach does not appear to have evolved.

Year 2000 Government Online Strategy	2013 Policy for E-Government and the Digital Economy
"…deliver all appropriate Commonwealth services electronically on the Internet by 2001…complementing – not replacing – existing written, telephone, fax and counter services".	"…getting all of its major services and interactions with individuals online…" "…Give people the option to elect to receive material from the government in digital form or in hard-copy, depending on their circumstance. We will aim to provide all correspondence, documents and forms in digital form, as well as hard-copy, by 2017."

Table 2: Comparison of Australian Policy Objectives, 2000 and 2013

As currently articulated, the "*2013 Policy*" also appears to follow a "*Year 2000 Strategy*" agency by agency approach to targeting high volume transactions (similar to the one that UK Prime Minister Tony Blair once wanted to achieve to put all government services online by 2005): "*...every Government interaction that occurs more than 50,000 times per year can be achieved online by 2017.*" It persists with an agency-centric view, with a discussion about "*heavy IT user*" agencies and "*light IT user*" agencies, and various details about procurement panels. There is no reference to citizens' needs and experience, and only a general single reference to overhauling strategic common services, such as payments.

The missing component in this brief comparison is reform – innovatively redesigning services across government (and with other sectors), integrating and re-packaging to achieve a truly seamless client experience. This would consequently result in some unnecessary "*interactions*" from individual agencies

being nullified, cancelled, "*joined-up*" or abolished – driving down costs and optimizing policy outcomes. The strategy needs to articulate that in the digital era of service delivery, hardcopy or physical tokens or artefacts do not need pointless digital replicas. Examples of this include the abolition of paper visa labels, the abolition of car registration stickers, and the abolition (many years ago) of paper withdrawal forms in banks. The forms – and current clerical jobs supporting the manual processing of these forms – will disappear in a disrupted, re-imagined and inter-connected digital ecosystem of government services.

A failure of capability?

Both in the UK and Australia, the gap between vision and reality over previous decades remained largely consistent. There was a significant failure of capability, characterised by the idea that the transformation of government administration and service delivery could be achieved by simplistically throwing "*IT projects*" at some of the public sector's most ingrained problems. This failure has often been wrongly legitimised by numerous audit reports, capability reviews, and various inquiries and media reports.

In the decade preceding these capability reviews, the Australian National Audit Office (ANAO) and various audits of inquiry dealing with "*IT projects*" have variously pointed to the complexity of systems, the lack of an architecture, the lack of business engagement, inadequate or scarce skills, and problems of "*IT*" procurement. "*IT projects*" are identified as costing too much, delivering too little, or failing. Standing back from all the individual Capability Reviews, audit reports and various inquiries – and looking strategically and systemically – there appear to be some fundamental governance and assurance questions to be addressed.

Why are new capability or reform initiatives persistently described by various audits, reviews and reports as "*IT projects*"? Responsibility and accountability cannot be understood or attributed within such a segmented frame of reference. And how can it be, that after a decade of such audits and massive investments, recent Australian Audit Office and Capability Reviews continue to point to persistent "*IT issues*" rather than looking below the surface at the actual causes that lie beneath the skin? Is it merely that keeping "*IT projects*" at arm's length provides a convenient scapegoat for more damning failures of leadership, management, governance and reform in our public sector organisations? The poor results of this broken approach speak for themselves: a comprehensive comparison of several countries' performance undertaken by a distinguished group of UK academics found a wide range of results when it considered how effectively IT was being implemented by governments around the world. Particular problems were apparent in both the UK and Australian approaches, as the table below illustrates.

Country	Outcome
Netherlands	1
Japan	1
Canada	0.75
USA	0.75
New Zealand	0.5
Australia	0
UK	0

Table 3: Membership of the set "Government IT schemes succeed and are rarely cancelled"
(source: Digital Era Governance, Dunleavy et al[12])

So why have these long-term structural and systemic issues persisted? Who is standing back and taking a holistic, system-wide, economic and risk perspective of the future of public services? Indeed, where in government does responsibility – and accountability – for taking such perspectives exist? The underlying problems of public service management will never be resolved so long as the convenient myth of the "*IT project*" is allowed to persist, displacing attention from the real causes of failure. It is concerning that audit reports and various reviews carry this meaningless type of reference. In doing so, they let the root causes of failure remain unidentified, unexamined and unaddressed. The extent and endurance of this problem is well illustrated by the UK's Institute for Government "*Civil Service Capabilities*" discussion paper[13] from 2013: it singularly fails to mention "*ICT*", "*IT*" or "*digital*" at all. Similarly, the Australian Public Service Commission "*APS Leadership and Core Skills Strategy (2014-15 Refresh)*" – a strategy that looks at the long-term drivers impacting the APS as an institution – also fails to mention "*digital*"[14].

Such significant absences appear indicative of the wider cultural problem that continues to see IT/digital as something that does not need to be understood by public sector management. It's hard to imagine any leadership team having credibility that says "*We don't need to understand finance to run our organisation*", or "*We don't need to understand people to run our organisation*" and yet the phrase "*We don't need to understand technology to run our organisation*" seems to have almost become a cliché through overuse. Yet how can any modern public services even be envisaged without the use of technology? It is not something to be added sometime downstream, but part of the core of how modern public services need to be designed and engineered. It is not about old paper forms merely delivered onto a screen, but about how the very nature, scope and quality of our public services are redesigned and improved in the digital age. It's encouraging that both the UK Government's "*Civil Service Reform Plan*"[15] of June 2012 and the "*Government Digital Strategy*"[16] of December 2013 emphasise the need for government to become a truly digital organisation – through, for example, ensuring departmental executive boards have the digital competence and skills to "*undertake end-to-end service redesign*".

Industrial age organisational structures and processes, as the bellwethers of the private sector have long since shown, are a busted flush in the digital era. The evidence of this is hiding in plain sight in the litany of audit reviews, commissions of inquiry, Parliamentary committee hearings and capability reviews which point to "*IT project*" disasters and the cost to the public purse of billions of dollars or pounds. The very fact that the assurance and review mechanisms in government describe major investments and change initiatives as "*IT projects*" is a symptom of a governance model and capability shortfall increasingly ill-suited to the digital era. This shortfall needs to be fixed if governments are to achieve the benefits from the application of technology to our public services they have long desired.

Reality check: where are we now?

The UK

Whilst in the UK much remains to be done to truly reform and develop digital era government, since 2010 there has been a significant effort to correct the problems of

the past and to put the use of technology in the public sector onto a better footing. An ambitious programme of digital reform is underway that puts users – not technology – at the centre of change. The catalyst for this was provided by the 2010 report "*Directgov 2010 and beyond: revolution not evolution*"[17]. It set out a strong vision for simplifying the user experience of public services by making all of them available through a single government site for online services and ensuring online government information and services are available wherever people are on the web by opening up applications and services to other organisations.

To achieve this, the UK has established the Government Digital Service (GDS), a move to bring back highly skilled IT and digital skills inside government. GDS has established the GOV.UK publishing platform and website, and worked closely with departments to implement a range of initial exemplar services that are being completely digitised. Its work has gained widespread recognition for introducing ways of working into government that have been long-established and well-proven in the best organisations elsewhere. A mandatory digital design standard has been established to raise the bar on the way services are designed. Service owners must meet these criteria before their service can go live, and must continue to do so for the entire lifespan of the service. Common requirements, such as the online identification of citizens across all government services, are being tackled by a whole of government approach.

The UK's National Audit Office has found promising signs of early progress on the back of this change of direction in the UK, following the creation of GDS and the move towards a "*digital by default*" public service strategy. One significant area of progress has been bringing programmes under better financial control and government-wide governance, with the NAO finding that in 2011–12 central government spent an estimated £316 million less on IT-related goods and services than it would otherwise have done. However, the NAO also found some frustration with "*the slow pace of change and the focus on cost-cutting, rather than on exploring innovative opportunities to redesign digital public services*."

Australia

In Australia, much work also remains to realise the original vision. Almost 35 per cent of government transactions are still carried out manually (face-to-face, over the phone, by correspondence, etc.). Of those that are carried out "*digitally*", it is unclear what percentage of these are actually completed end to end online:

- Government agencies still manage over 105 million voice calls per year
- Many of the 170 million face-to-face transactions were to prove identity (this is up from 110 million 8 years ago)[18]
- Only four agencies provide interviews and/or customer services by digital video
- Some 250 million letters are still sent by the Commonwealth each year

Equally, the "*technology*" acquisition arrangements in the Australian Government are overly bureaucratic and process-focussed. The Australian Government Information Management Office (AGIMO) for example has no less than 50 ICT procurement panels. There are companies – large and small – who in order to deal with government are registered on up to 60 panels across the federal level in Australia[19]. These processes do

not strengthen governance – but add to cost, risk and impact delivery. These industrial age procurement processes are not only a significant driver of red tape but are out of sync with the dynamics, timeframes and innovation required in digital government administration.

In a more positive move, the Victorian, New South Wales and Queensland governments are all pursuing the development of better service business models. However, in the federal government sphere, there is still very much a prescription of technology – which is not only an outdated approach, but highly risky given the pace of innovation. And because there is no digital capability architecture, agencies are each procuring the same or similar capability from an agency-specific perspective. This "*process*" focus rather than "*architectural*" focus drives multiple costs and risks across government without achieving interoperability, agility or an improved service and experience for citizens.

Notwithstanding the $5 billion spent on technology every year by the federal level of government in Australia (just at the national level), reform of the Australian government administration and service delivery arrangements is impeded by an out-dated operating model that undermines the broader policy objectives of government. The proposed Welfare Reforms[20] and the new conceptual architecture of welfare reform in Australia will be severely constrained and compromised by the lack of a whole-of-government architecture, the lack of a strategy for the digital age, profound technology obsolescence, and the lack of open interoperability design, when interoperability is the very essence of service innovation in the digital age.

Turning the brownfields green

We do not underestimate the difficulty and sheer scale of redesigning government for the digital age. But equally we see little prospect of fixing the long standing gap between aspiration and reality unless technology stops being dismissively pushed away from the core of government as merely a means of automating the past, or – worse – as a convenient get out of jail free card for any failures in public services and their management, and hence a convenient route for escaping accountability.

Unlike much of what has happened in the private sector, where new, greenfield organisations have come along and eaten the business of old, brownfield organisations, the public sector needs to catalyse its own reformation. Unless it does so, it will face an existential problem, with citizens and businesses alike increasingly frustrated by the taxes consumed by public services at the same time that those services increasingly fail to match their expectations of quality, relevance and timeliness. Much like the pioneering and greenfield Egg Bank was incubated within the nest of an old, brownfield organisation – the Prudential insurance company – government needs to find a way of letting a new, digital era government grow successfully within.

This idea of growth is essential: the "*big bang*" or imposed and massively overly-engineered, top-down ideas of "*business process re-engineering*" will only condemn government to witness more headlines about massive project failures and budget overruns. As with the early, promising steps of the Government Digital

Service in the UK, government needs to find incremental ways of moving from its current model to one that is radically different, centred around citizens' needs rather than those of the arbitrary organisational structures and fiefdoms inherited from the past. It is too early to say whether GDS in the UK will become to the rest of government what the Egg Bank became to the Prudential: the growth of a new and better way of running services from the midst of the old, the new model of a modern government emerging from the old.

Overcoming the impasse

There are profound political challenges in moving government successfully into the digital age. It will require strong and sustained change management, reskilling top management and leadership within the public sector, empowering officials to think the unthinkable and work to improve their services – and maybe even to *remove* their organisations. Many current public sector jobs will probably disappear – notably those involved with the administration and bureaucracy of inefficient processes and duplicated hierarchies and organisational structures. Politicians may rally to protect unnecessary jobs and organisations in their own constituencies rather than to take responsibility for improving public services. But as with every other innovation and change over time, those jobs displaced – which add no value to the taxpayer who funds public services – will be replaced with new jobs, ones that have more value to citizens and business, and more value to our economies: more doctors and nurses on the frontline, or more police, social workers and midwives in our communities. The change will be immensely disruptive to vested interests – many managerial and clerical roles, and organisations, in both the public and private sectors will change beyond recognition, or even disappear. It is perhaps an unspoken or latent awareness of the true potential for technology – and the pain this transition will involve – that underlies the inability to close the gap between political aspiration and making it happen on the ground.
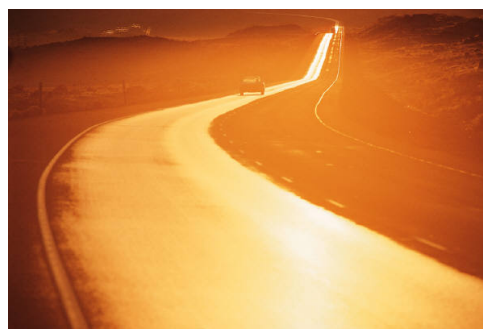
We should not however fear making such improvements simply because of the upheaval and disruption they would cause. Governments and officials need the vision and willpower to tackle this reality head on. If governments continue to postpone and procrastinate about genuine public sector reform, they will merely postpone the inevitable. Worse, such attempts to avoid reality may trigger a catastrophic failure of confidence in the public sector as it continues to diverge ever further from efficient, technology-enabled improvements witnessed in the best private sector organisations. So-called "*machinery of government*" changes are not exactly a hot topic at the ballot box and hence regarded as low on the list of any politician or media commentator. But it is precisely such machinery of government changes that now need to rise to the top of the "*To Do*" list: it is these changes that will help address many of the underlying systemic inefficiencies, broken processes and poor quality of services that cause the very noise that preoccupies so many citizens and politicians. It is time to focus on fixing the signal, not the noise.

So what next?

There needs to be a re-think and a re-assessment of how meaningful public service modernisation happens in the round – not as some sidelined "*IT project*". This does not mean yet more paper-laden processes, burdensome internal "*multi-stakeholder*" talking shops or more risk: it means returning to first principles of what government is trying to achieve with public services, of how they can be designed now, and of establishing a shared understanding of complex systems (as opposed to discrete and apparently unrelated projects) together with more relevant governance and risk management.

The answer is not to continue fiddling in the margins of reform, by for example moving the deckchairs to bring mega agencies together or to put in place "*shared services*" arrangements. These are industrial age command and control administrative approaches, reminiscent of the industrial era where operations were organised "*around the power source, which was how you had to in the age of steam.*" Far more fundamental questions need to be answered: what do citizens need, what is government's mission, what services should it deliver, what is the operating model and what is the most optimal means of delivery? This does not mean that government has to own, operate and deliver every requisite capability – rather, it acts as a smart, benevolent broker working on behalf of citizens.

The strategic narrative needs to change away from the misguided focus on the technology and a lack of strategic focus on the information. This is a very significant issue – because with almost all "*IT project failures*" the issue has not been the technology, but better information and data management. The numerous audits, reviews and reports reflect poor knowledge management and data management practices across agencies: we lack modern, data-driven and evidence-based decision making in government. Analytics – one of the core capabilities of the digital era – have been based on the dedicated efforts of a few areas and individuals, but have not been invested in or driven strategically at a government-wide level. The retail and banking sectors by contrast apply analytics as a core and strategic capability.

Without a vision and a supporting strategic capability architecture in government administration there can be no effective governance. How can you construct a building without an architectural blueprint – or a town without a town plan? How do you know what you are building is right unless you have a clear vision for where you want public services to be in 5, 10 years time? It is the design of public services and the data needed to deliver them, simply and effectively – not the technology or the current organisational and functional structures – that provide the foundation. And "interoperability" across the "town" is how the citizens are served.

Organising the effort

The effort to deliver this transformation needs to be imaginative, scientific, measured and agile. This is not about business as usual or an agency-by-agency approach and for that reason the transformation must be centrally driven, but locally delivered: what the UK's Minister for the Cabinet Office, Francis Maude, has called "*tight-loose*".

A "*Commission of Transformation*" type effort should be set up – similar to reconstruction commissions set up following man-made or natural disasters. The commission or taskforce should have DARPA style special forces project teams redesigning and delivering government services around evidence-based citizen need, similar to the work being pioneered by the UK's Government Digital Service. This must not jump to a solution – for example, that public services will be delivered by the government or by the private sector – before it has examined the best means of ensuring the best possible outcome: the digital delivery platform will be fluid and shaped by citizens' needs. This type of approach is already evident in the work of GDS in the UK, who are applying such "*tight-loose*" controls: tight control at the centre over things that need to be consistent across government and to prevent pointless and expensive duplication, and loose in terms of enabling the frontline providers closest to citizens to ensure their services best meet their needs.

The teams that make this happen must unapologetically be the world's best. Drawn from all sectors and disciplines: the best from the giants of the web, human factor specialists, designers, systems thinkers, modellers, architects, and innovators from both the developed and emerging markets. The sourcing of this talent will not be through a long drawn out procurement process but through an innovative process akin to the process of mobilizing reserves. The mix of skills needed will change and flex over time, so the process needs to be dynamic, bringing in and out the right skills and experiences as and when they are needed.

The team should be led by someone with the same passion, drive and perseverance that Bill Gates has for his philanthropic missions. This is not some dry, yawning debate about "*IT in the public sector*" – but about recognising this transformation has to make a difference to the lives of the most disadvantaged people. Whilst driven hard centrally, this transformation will have a system-wide accountability framework – every decision will be referenced to this transformation. The digital disruption of government will yield a significant and enduring return to budget: early implementation of this sort of model in the UK has already produced significant savings recognised by the National Audit Office, and the UK believes there is more – much more – to come, not just in savings, but in significant improvements to the quality and relevance of services.

We need to re-think the notion of targets. Without a narrative, a context, a story around the citizen, targets are meaningless. They end up driving the wrong behaviours, with the targets becoming the ends in themselves, rather than better outcomes for the users of public services. More important is a set of principles to underpin the approach required and the change in behaviours necessary to succeed: the sort of principles that GDS in the UK have set out[21]. Their work on developing and curating a living Service Design Manual[22] – setting out good practice in the transformation and redesign of public services, combined with a process that constantly updates and refines the Manual's contents based on the reality of work taking place across their engagements in the public sector – provides a practical and grounded approach to sharing implementation experiences about what works, and what doesn't.

Putting hundreds or thousands of forms or transactions online was never going to be a good idea: it propagates a failed and socially divisive model from the era of mass duplication and paper-based inefficiency and alienation. Putting complexity online is lazy and expensive because it forces the citizen to do the hard work of figuring it out and providing the same information time after time after time, simply because of the poor design of public services within their current organisational fiefdoms. Governments need to declare what "*transactions*" are going to be stripped away, abolished, combined or transformed – such as paper visa labels and car registration stickers. State how the outcome will improve the citizens' experience: and how this will be objectively assessed so that we know whether it has succeeded or not.

The timeframes need to be unapologetically aggressive and agile because what is at stake is so significant in terms of economic, social and human impact. This is about making rapid progress, of trying, learning and improving on the fly, letting new services grow alongside the old until they are proven and adopted, while the older, broken systems, processes and even organisations can be allowed to wither and die as the new ones emerge, are proven and take their place. This will be the public sector's equivalent of moving from Blockbuster to Netflix – of moving meaningfully into the digital age instead of merely throwing technology at the status quo.

A vision of better public services – the digital moon shot

The next decade cannot afford to be like the past two decades. There is an urgent need for a change of vision and strategy: a re-boot and re-imagination of approach. In the UK, the 2010 report "*Revolution not evolution*" has spurred the beginnings of change: but even the early work of the Government Digital Service will require sustained support to become the mainstream, helping build the new public services and government of tomorrow rather than merely to polish the old way of doing things.

The transformation must be expressed in terms of the citizen: this is their story. This is not about some top-down patronising *concept* of a citizen as imagined from the lofty towers of officialdom. It's about the patient, the car driver, the small business operator, the farmer, the new mother, the hospital porter. These are not necessarily different citizens but they are different contexts and the citizen can be all of these simultaneously. Therein lies the challenge since government has never built its services around this simple reality.

The citizen must truly be at the centre of digital era government because they will determine it – unlike the current approach, built around the internal priorities of government's various organisational silos. This represents a massive challenge to the way government assumes it needs to build and operate services. The strategy for the next decade needs to be about simplifying – making the interaction with government seamless – taking away the clutter. But this can only happen if public services are properly designed – designed around the citizen to meet the outcomes they need and desire.
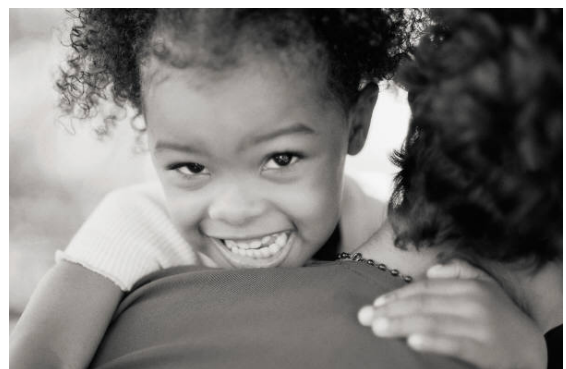
So what should the future look like? Ideally, by 2020 all the thousands of government forms will be long gone – there will be no need for them. Forms are a clumsy, paper-era means of capturing data: as Amazon and other online providers have long since shown, the majority of people are more than capable of inputting and maintaining their own personal data, keeping it up to date and under their own control, actively managing consent over how and when their personal data is used. For those who are unable or unwilling to do so, assistance must be readily and freely available in their communities: all of the massive costs and waste eliminated by removing historic government inefficiencies will easily enable this to happen.

Digitisation will also enable a powerful analytics capability delivering insight into what works and what doesn't, and enabling essential "*what if*" analyses of alternative policy options in areas such as welfare and taxation. Such analytics will yield long-absent insight and help drive innovations in both policy and service design – gathering real-time user feedback on how well public services are working, and where they are broken, as the performance data analytics of GOV.UK are beginning to show[23]. Governments will become able to conduct real-time modelling of possible welfare and taxation changes – seeing what impact a pull on the welfare or taxation lever has on which citizens and which communities. Much of the "*do it and let's see what happens*" approach to policy making will be displaced by a much more detailed understanding of how policy relates to practice, and its very real impact on citizens' daily lives.

The prize

The prize remains one long foreseen by politicians – but only if technology is used as a genuinely integrated means of fundamentally reimagining and redesigning public services. We have seen how both the UK and Australia have historically struggled to make this breakthrough. Recent developments in the UK with the Government Digital Service show promising signs – provided they can become the fabric of government, rather than the exception. There are billions to be saved by properly redesigning and digitising government, billions that can be better deployed on improved frontline services or returned to citizens – as politicians and their electorates see fit. Government systems, from welfare and taxation to healthcare and education will be able to change much more flexibly, removing the current time lag between pressing socio-economic need and delivery.

In the digital era, government needs to enable a flexible platform of core services drawing upon in-house and external capabilities, defined by a flexible underlying service architecture and determined by the citizen experience. Digital age government requires a re-imagination of public services, enabled by a fundamental redesign of the organisational machinery of government and its relationships with citizens. This is not a direction that governments can choose or not choose: it *has* to happen if our public services are to avoid a painful and catastrophic existential crisis. This is why the digital disruption of government **does** matter at the ballot box – whether that is understood yet or not.

This, then, is the evolving tale of our two countries (… *to be continued*).
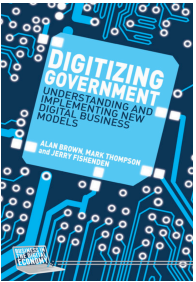
About the Authors

Dr. Jerry Fishenden is an independent technology advisor, including to the UK Government, and Senior Research Fellow, Bath Spa University. He was appointed specialist technology adviser to the House of Commons Public Administration Committee for their inquiry and report – "*Government and IT 'A Recipe For Rip-Offs': Time For A New Approach*". As well as being an active practitioner, Jerry is the author of numerous articles and papers, including (with Dr Mark Thompson) "*Digital government, open architecture and innovation: why public sector IT will never be the same again*", Journal of Publication Administration Research and Theory, September 6, 2012. Jerry is the ex-CTO of Microsoft UK, the UK City financial services and investments senior regulator, the UK Parliament, and the NHS. He has an extensive track record of technology leadership, delivery and implementation. He is also a CIO columnist and CIO 100 judge.

Marie Johnson is the Managing Director and Chief Digital Officer of the Centre for Digital Business. An experienced CIO and CTA, Marie has delivered significant technology, innovation and digital services transformation programs across taxation, business, social services, payments and immigration operations in the Australian Government. At Microsoft, she was the Worldwide Executive Director of Public Services and eGovernment based in Redmond USA. In this role, Marie and Jerry were joint authors of the Microsoft Strategy "The New World of Government Work". In 2006-2007, Marie was named "Innovative CIO of the Year – Australia". In 2013, Marie was named one of Australia's "100 Women of Influence". Marie is a Board Director of the Australian Information Industry Association (AIIA); a member of the NSW Government ICT Advisory Panel, which advises on transformation and ICT strategic directions for the NSW Government; and a member of the NSW Digital Government Taskforce. She has an MBA (Melbourne Business School); Bachelor of Arts; Harvard University John F Kennedy School of Government Senior Executive Fellows Program; and is a Graduate of Australian Institute of Company Directors.

Acknowledgements

Notes and References

[1] Manchester Centre for Development Informatics, iGovernment Working Paper 20. 2010. Carolyne Stanforth. Retrieved from http://www.sed.manchester.ac.uk/idpm/research/publications/wp/igovernment/documents/iGovWkPpr20.pdf 18.03.2014

[2] Brown, A., Fishenden, J., and Thompson, M. Digitizing Government: Understanding and Implementing New Digital Business Models. Palgrave Macmillan. 2014.

[3] See http://ctpr.org/wp-content/uploads/2011/03/Government-Direct.pdf

[4] January 1998, p.62, POST ELECTRONIC GOVERNMENT: information technologies and the citizen

[5] See http://ctpr.org/wp-content/uploads/2011/03/modgov.pdf

[6] See http://www.independent.co.uk/news/uk/politics/labours-computer-blunders-cost-16326bn-1871967.html

[7] See http://ctpr.org/wp-content/uploads/2011/03/Successful-IT-Modernising-Government-in-Action-2000.pdf

[8] See http://webarchive.nationalarchives.gov.uk/+/http:/www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf

[9] Coalition Policy for eGovernment and the Digital Economy. August 2013. See http://lpaweb-static.s3.amazonaws.com/Coalition%27s%20Policy%20for%20E-Government%20and%20the%20Digital%20Economy.pdf

[10] See www.business.gov.au

[11] Bell Report ("Time for Business"). Howard Government 1996. Review into the compliance burden across the three levels of government in Australia.

[12] Dunleavy, P., Margetts, H., Bastow, S. and Tinkler, J. Digital Era Governance: IT Corporations, the State and E-Government. 2008. Oxford University Press.

[13] See http://www.instituteforgovernment.org.uk/sites/default/files/publications/20130621%20-%20Capabilities%20Discussion%20Paper%20-%20final.pdf

[14] http://www.apsc.gov.au/publications-and-media/current-publications/aps-leadership-and-core-skills-strategy-2014-15-refresh

[15] See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305148/Civil-Service-Reform-Plan-final.pdf

[16] See https://www.gov.uk/government/publications/government-digital-strategy/government-digital-strategy

[17] See https://www.gov.uk/government/publications/directgov-2010-and-beyond-revolution-not-evolution-a-report-by-martha-lane-fox

[18] KPMG Access Card Business Case (Public Version). http://pandora.nla.gov.au/pan/65938/20070207-0000/www.accesscard.gov.au/various/kpmg_access_card_business_case.pdf

[19] Australian Information Industry Association (AIIA) evidence to the Public Hearing of the Senate Finance and Public Administration Reference Committee Inquiring into Government Procurement Procedures. 21 March, 2014

[20] "McClure Welfare Reform Report". A new System for Better Employment and Social Outcomes. Interim Report of the Reference Group on Welfare Reform to the Minister for Social Services. June 2014. See http://www.dss.gov.au/our-responsibilities/review-of-australia-s-welfare-system#release

[21] See https://www.gov.uk/service-manual/technology/code-of-practice.html

[22] See https://www.gov.uk/service-manual

[23] See https://www.gov.uk/performance/services