



Fundamental Issues

Welcome to The Infonomics Letter for September 2010. Yes, it's a couple of days late again – clearly I need to skip a month and aim to publish early in the month. I think that will happen as we traverse the Christmas-New Year holiday break.

It's again been a huge month with substantial travel – first to Sydney to deliver the second of the Australian Industry Group's introductory seminars on governance of IT. A week later I was winging to Johannesburg for a standards meeting. Then with a scant two days for recovery, it was northward bound to Brisbane, for the World Computer Congress, a masterclass and several client meetings.

The WCC provided a great opportunity to engage with some leading minds in the debate about future use of information technology, and specifically to focus on the vitally important role of business and government leaders in this space. In "Who is responsible" this month, I explore the statements that I made to Senator Kate Lundy regarding the need for a massive education program to build the necessary understanding and business leadership for effective use of IT across the entire economy. My assertion that leading IT industry and business organisations don't get that need was somewhat of a surprise to the chair of the Australian Information Industry Association and is likely to lead to further, and I hope very positive, debate.

Did you notice the small change to the subtitle of this journal? It will filter into the Infonomics patina over coming months. It reflects two key elements of how my thinking is evolving – first that governance of IT cannot be rationally segmented into types – and second that a fundamental part of governance is leadership. What do you think? Let's debate!

Governance of course also includes oversight, and involves asking of questions to test management and confirm that, among other things, the organisation is operating on a stable footing. In "Oops, Sorry!" we explore the very recent trouble at Virgin Blue, when the airline was effectively grounded for 21 hours because the outsourced reservations system failed. We use a very rough thumbnail calculator to estimate the financial impact of the event, and then we pose a series of eight questions that business leaders should ask about how well their organisations are prepared for similar events. How would your organisation rate on them?

Waltzing with the Elephant has chalked up another milestone – see "New Elephants" for the detail.

I'll be back in your email box in a month.

Mark Toomey
3 October 2010

Who is responsible?

The World Computer Congress, held in Brisbane during September, produced few significant headlines. One, prompted by KPMG's global head of sourcing, Kumar Parakala, says bluntly that [CIO's need a greater "business focus"](#).

But isn't this advice that we have been hearing now for several years? CIOs need to communicate better with the business, speaking in business terms. CIOs need to adapt instantly to changing business conditions and demand. CIOs need to become part of the executive management team and sell their ideas better to their executive peers. Taken to the extreme, the advice seems to be that CIOs need to plan ahead of the business so that they can be there with the business solutions required when the business leaders dream up the need. Clearly, CIOs need to get better crystal balls so that they can look beyond the planning horizons of business, along with a number of other superhuman capabilities.

And as I think about the few organisations I know that are extremely effective in their use of IT, it occurs to me that they have one thing in common: none of them have a superhuman CIO working alone. Rather, they achieve consistently high performance in their use of IT because the entire leadership understands that IT is a tool of business and that they have a responsibility to use that tool effectively, throughout the management cycle of strategy development, detailed planning, implementation of IT-enabled business capability and operation of the IT-enabled business.

This brings us to the other WCC related news story of interest – the one that I triggered myself following a briefing by Senator Kate Lundy. In a minor misquote, [The Australian's Andrew Colley](#) reports that I told the senator during the panel discussion following her briefing that several key business groups "just don't get" the economic benefit of the NBN. What I was actually talking about was that several key business groups don't get the key problem with extracting the maximum value from business use of IT. The NBN (National Broadband Network) is just a topical case in point, and a fair example even if I didn't actually refer to it at the time. Colley's article then goes on with a quote from my statement in the discussion: "We still have a massive education job to do in this country to shift from where a few business leaders, in a few very successful organisations get it and know that it's a competitive advantage for them, to where all Australian business leaders and governments actually get it".

The "it" to which I refer is the fact that, as IT has become pervasive in business activity and fundamental to ongoing growth of business, planning

and delivering real business value and real business performance can no longer be regarded as the sole responsibility of a CIO or other IT supplier. Like any other asset, IT is now an established tool of business which will continue to evolve from the supply perspective, but for which the value proposition is now firmly in the hands of business leaders. Business leaders determine the direction of the business, and therefore determine how it will use IT. If they regard IT as an enabler of future possibilities, taking into account the current capability and future potential of IT, they are likely to generate different plans to their counterparts who regard IT as an overhead and inconvenience. As history has shown, it is the organisations that can visualise the future and exploit the opportunities offered by evolving technology that will be the top performers and long term survivors.

My comment at the WCC was prompted by Senator Lundy's very interesting briefing where she spoke about the Australian Government's plans for "Gov 2.0". The Senator emphasised that the transition to Gov 2.0 requires a significant shift in the culture and policy of government agencies, particularly at the top levels of management, to enable the changes to operating models and behaviour that will allow government to fully exploit the opportunities now available and likely to become available through technology evolution, to deliver better, more effective and efficient government service to the nation.

This shift is the same one that was highlighted by Sir Peter Gershon when he reported to the Australian government on its governance of IT. He highlighted a lack of comprehension and engagement on the part of the Australian Government and its Australian Public Service Leadership in setting the agenda for, and driving the realisation for driving real value out of improved use of IT. It is a fundamental issue that exists not just in government, but also very much in the broad range of industry that makes up the Australian economy.

At the core of the problem is the distinction between the tasks of implementing an information technology resource and implementing comprehensive business improvement enabled by information technology. The former is the domain of IT specialists who design, build, support and operate the marvellous mysterious machines that enable much of the magic in our developed world today. It's a domain that relatively few understand and, frankly, relatively few need to understand, because while it's important, it's no longer the main game.

The latter task, the one of implementing comprehensive business improvement enabled by information technology IS the main game. This is the part that delivers the transformations in efficiency and performance of government service delivery, and in business capability and performance. Simply putting

in place the technology creates nothing – it's when that technology is wrapped up in the other elements of a business that the real action should happen.

While technology enables comprehensive business improvement, the work required extends far beyond simply acquiring and installing some new information technology. It begins with understanding the way that business operates today, correlating that with the possibilities offered by advances in information technology, and juxtaposing the two to create visions of the future – visions of new business operating models, of new products and services, and of new benchmarks in performance. It demands understanding and realisation that these operating models, products and services, and performance benchmarks, while enabled by technology, will also demand new skills and capabilities in the extended workforce (those who work for the organisation and those who work with the organisation), new practices and processes for working, and in many cases, new structures of delegation, authority, control and support. Planning and implementing such change, which transforms business systems and creates entirely new ones, is not, and never will be an IT task. It is a fundamental business development task that depends on many organisational capabilities, of which relevant IT skills are but one important element.

Driving transformational change across organisations requires skilled and dedicated leadership from individuals who have the vision, together with the passion to drive the vision, the skills and authority to orchestrate the work required, and the strength to persist and overcome the obstacles. It's a level of leadership that simply can't be expected of the CIO, simply because the CIO alone can never have the authority to independently drive the scope of change required for truly successful IT enabled business change.

So we come back to the issue I presented to Senator Kate Lundy – the gap between the leadership capability necessary for achievement of the Gov 2.0 dream in the Australian Government and the actual leadership credentials of the Australian Government and the Australian Public Service. To her great credit, the good Senator acknowledged the issue. It was pointed out in mid-2008 by Sir Peter Gershon and was repeated in the Gov 2.0 report prepared during 2009. All we have to do now is solve it. But solving it won't be easy, and that's why I suggested that we need a massive education effort.

The education effort is not one for IT people in isolation, or alone. In fact, it's only relevant to IT people in terms of disabusing the notion promoted by so many commentators that IT people must also become omnipotent in all aspects of business. The principal targets for this education must be the people at the top of business and government, from the

largest to the smallest organisation, in every sector of the economy. The purpose of the education must be to build their understanding of the realities in developing and operating the IT enabled business of the future, including the crucial obligation that they have to be responsible for providing the leadership and for driving the outcomes and value from adoption of new IT enablers.

As part of my comment to Senator Lundy, I suggested that the Australian Information Industry Association (AIIA) and many business associations don't get it. Of course, I was referring to the issue of executive leadership, responsibility and accountability for IT enabled business transformation that delivers real business outcomes and value. Unsurprisingly, my comment drew reaction from John Grant, who is chair of the AIIA and who by coincidence was seated next to me in the auditorium. Mr Grant has a different view and clearly believes that his organisation does understand the problem. Perhaps we see the problem through different lenses. I believe, as I have written many times in this journal, that there is an unbreakable nexus between good governance of information technology and the calibre of leadership engagement and understanding required in all types of organisation. I believe that to make a real difference in the economy, to shift the marketplace from its current situation where investment in IT is often undertaken reluctantly and with an expectation of failure to a future situation where investment in IT is an enthusiastic first choice frequently coupled with clearly demonstrable success, IT industry organisations like the AIIA must broaden their engagement so that they are working to improve not just the supply of IT, but the USE of IT. To do this, they should be explaining to the marketplace the fundamentals of governing and managing IT-enabled change in the modern era, championing those who are bold enough to take the first steps, and recognising those who have demonstrated superior achievement, so that they can become key motivators for those who are more sceptical and slow to move.

If the AIIA is already there, I'm sorry that I've missed the shift and hope that I can catch the wave. If it's not already there, I hope that I can engage with its leaders and help advance the cause, and help to bring a whole lot of other organisations along on the journey as well.

As I said in the discussion with Senator Lundy, the Australian Institute of Company Directors has commenced the journey, with several briefings on governance of IT having been conducted in various cities during the past year. In New Zealand, the Institute of Directors has, as regular readers know, also dipped its toe in the water with a recent briefing for its Otago chapter members. The Australian Industry Group is also moving in the right direction having just promoted introductory classes on

governance of IT for members in Sydney and Melbourne. But there are many more business organisations in the marketplace, in Australia and around the world.

It's time for the IT industry to begin a serious dialogue with those organisations as well, with a view to promoting widespread understanding in all markets of the new reality of information technology – that it's a business problem and solving it demands top level, fully engaged, well informed and diligent business leadership.

Oops, Sorry!

Virgin Blue is Australia's second major airline, operating routes across the continent and to several international destinations. Like all major airlines, Virgin Blue is totally dependent on key IT systems.

That dependence was demonstrated in the strongest possible way in the early morning of Sunday September 26th, when the reservation and check-in system at the core of the airline's operations failed.

Virgin Blue is not the first airline to suffer such a failure, and certainly won't be the last. During 2009, Qantas suffered more than one service interruption from the global reservation provider, Amadeus. But this failure was not a small one – Virgin Blue waited almost a full day for restoration of service.

September 26th is not an ordinary Sunday. It's the day after the Australian Football League Grand Final. It also coincides with school holidays. As a low-cost operator, Virgin Blue attracts a substantial part of the leisure market and it would have been heavily booked on that Sunday.

Airlines that are unable to deliver services carry a number of obligations to their customers – some written in law and some driven by the need to maintain good customer and public relations. For many of the passengers delayed as a result of the reservations system failure, Virgin Blue will have incurred cost of overnight hotel stays with meals and taxi costs, plus refunds and complementary future travel.

We may have to wait for Virgin Blue's 2010 annual report to glean the cost of this disruption – and even then it's likely to be a lurking shadow in the reports rather than a clearly stated item. Notwithstanding, we can derive some basic understanding of the financial impact from the airline's December 2009 interim financial report and some of the information in the news reports:

• 6 months revenue	\$1,512m
• Aircraft operating costs	\$94m
• Airport charges etc	\$294m
• Fuel and oil	\$385m
• Labour and staff	\$304m

These are just some of the items in Virgin Blue's consolidated Income Statement. They translate into an average daily revenue of \$8.28m. One way or another, the disruption on September 26 would carve a huge hole in that revenue. If we allow a conservative 50%, that would be \$4m gone from the bottom line.

There may be an upside – not being able to check-in passengers means they can't be put on aircraft and thus most of the flights on the day were cancelled. That saves fuel costs and possibly some airport charges, but not a lot more. Crews were rostered on and the cancellations were not their fault – they have to be paid. Similarly staff at the terminal and in the call centre were not merely on duty – they were besieged – many would probably have worked substantial extra hours. We can guess at normal operating costs for the day being reduced only by the fuel savings – roughly \$2m. The net hit to the bottom line is still somewhat over \$2m.

That's not all of course – the free flights in compensation for the delay will offset future revenue and the costs of hotels won't have been small – especially as it seems Virgin Blue did not have any opportunity to leverage corporate discounts. According to news reports, 50,000 passengers were inconvenienced. If just 10% of them claim the costs of accommodation, meals and taxis, Virgin Blue will be up for another \$1m plus. No doubt an in-depth analysis will show that the total cost of the incident is well above the \$3m in our thumbnail estimate here. But that \$3m is already just under 5% of Virgin Blue's 2009 half year net profit. It's not trivial.

As with every significant failure of IT, whether it comes in a project or, like the Virgin Blue case, as an operational system breaking down, there can be many lessons to learn from the event. If this were an aircraft crash, the investigation that would follow would be unstinting in its pursuit of root cause and lessons, with both the analysis and learnings reported in a comprehensive but dispassionate manner from which all air operators could learn. While it's unlikely to happen, a comprehensive, dispassionate and fully published analysis of what happened, and how the failure could have been prevented, would no doubt provide great insight and opportunity for improvement in many organisations.

There is of course the potential for a legal action – Virgin Blue outsourced its reservations system to Accenture subsidiary Navitaire, at a reported project cost of \$10m over two years, with the system having gone live in June 2010. News articles suggest that the problem was triggered by a hardware failure, and that where switchover to a fallback system should have been completed in under three hours, Navitaire staff instead burned time trying to fix the primary system. While we are far from fully informed on the

detail of this case, the situation does nonetheless point to some very fundamental governance questions that apply to operationally critical systems – questions that should be asked and answered regardless of whether the IT is internally provided or outsourced:

- **How long can the business tolerate an essential system being unavailable?**

For many organisations the pain starts from the moment of failure. The critical governance level decision focuses on how much pain is tolerable before business operations are back in order. This should be the driving force for the plans to manage disruption and for the planning and provision of fallback capability.

- **What is the minimum time required to resume operations on an alternate platform?**

This clearly must be short enough to allow a high probability of successful fallback before the interruption reaches an intolerable level. The time should be measured from the decision to invoke fallback to the time when the fallback has been completed and verified – verification being a clearly defined battery of tests to confirm that required functions are available and that business data meets clear and well understood criteria for currency, completeness and integrity.

The time available for fallback will determine the specific technique to be used for implementing the fallback capability and these together will then determine many detailed aspects of the fallback procedure.

- **What are the allowable restart actions to be taken on a failed system before a transfer to fallback is initiated?**

Although modern IT equipment is highly reliable compared with earlier generations of systems, there are a variety of conditions that can occur where a failure is transient, or very easily resolved, enabling service to be resumed in less time than it would take to switch to a fallback system. However, it can become very tempting for technicians to overrun on attempting to resolve a problem when the fallback process should have been initiated. There should be very clear rules to ensure that fallback procedures start on time, regardless of whether technicians are confident of a timely restart of the failed system.

- **Who is responsible for managing the business impact of an escalating service disruption?**

As the Virgin Blue case clearly shows, business impact of a service disruption is the problem of the organisation whose business is disrupted. It is now extremely rare that business can continue as normal when a major IT system is unavailable and

in most cases, business activity will be at least severely degraded, if not completely stalled. There will inevitably need to be arrangements in place to deal with customer impact, other stakeholder impact (including other suppliers and business partners), and regulators. It may be necessary to bring on extra staff, or send some staff away, to authorise extra expenses and to activate other contingency plans. Any service disruption that becomes increasingly severe (such as one that is not resolved in time to avoid significant business impact) must be managed by people who are competent in the role, have the authority to act, and are fully supported by the organisation.

- **What are the specific procedures, roles, protocols and other arrangements required for managing the business impact of an escalating service disruption?**

The last thing an organisation can afford to be doing when a major business system fails is to be working out the management response on the run. Risk management and contingency (or business continuity) planning should ensure that there is a complete, fully tested and effective plan for dealing with both anticipated and unexpected failures of critical business systems. The plans for dealing with service disruption should be kept current as the business evolves, especially with regard to personnel and structure changes, key role assignments and activation protocols. The arrangements should be thoroughly tested at prudent intervals, with specific attention to exercising assumptions that may have been made by the planner, such as unrestricted access to off-duty personnel.

- **Are all personnel properly trained and current with respect to the arrangements for managing an escalating service disruption?**

As with the plan, it is often inadvisable to expect personnel dealing with a systems failure to simply switch to failure management mode and work effectively from a failure management handbook. They are likely to be under pressure and prone to deviating from the intended management approach, unless sufficient attention has been given to preparing them for such an event.

- **What evidence exists that procedures for transfer to fallback are sufficient to restore normal business operations with no unacceptable loss of business functionality and no unacceptable damage to business data?**

Switching to a fallback IT environment for major business systems is likely to be a very complex process, with many conceivable failure points. Rigorous and regular testing is essential – as even

if the process and systems are unchanged, the personnel who will be involved should experience the process as a routine drill so that when they are called on to do it in reality they know what to expect. To guard against subtle problems creeping into the recovery process, it is essential that the recovery tests are thorough, going all the way to proving that business activity can take up on the fallback system with no unacceptable loss of functionality, data or integrity.

- **What evidence exists that the personnel responsible for operation and management of the IT systems are trained, competent and current in the procedures required to recognise a system failure, and to initiate and conduct a complete transfer to fallback?**

Many business-critical IT systems are managed and operated in a 24X7 environment by shifts of skilled workers. Failure can occur at any time, and can thus strike any combination of shift and management teams. In many organisations, the personnel complement is constantly changing and thus specific attention is needed to ensure that an acceptable level of competence is available to deal with failures regardless of when they occur.

As we well know, the practice of outsourcing information technology services is now very well established. The Virgin Blue case serves as a reminder that handing off day by day responsibility for IT services to specialist organisations does not necessarily provide an absolute guarantee against failure. And while there may be contractual and legal remedies to recover losses arising from a service failure, there should be no doubt that absence of disruption is a far better outcome. There should also be no doubt that even though it may be able to lay blame at the feet of its supplier, no organisation should simply assume that outsourcing rids it of the need to anticipate, mitigate and prepare to cope with the likelihood that something will go wrong with major IT-enabled business systems.

Recent Events

Australian Industry Group made a low-key entry into the business of educating its members about leadership and governance of IT in training sessions in Melbourne and Sydney, early in September.

Unfortunately the federal election stymied initial plans to give the program a significant launch, but we were still able to attract a significant number of business executives who are now much better equipped to discuss and control the agenda for getting business value from IT investments. One participant, the marketing director of a privately held company, said: *"It was most illuminating and by the sounds of the talk around the table, relevant and timely for all involved."*

The international working group responsible for ISO 38500 met in Johannesburg during the third week of September. Significant progress was made on the groups three current projects.

The World Computer Congress attracted 1100 IT professionals, academics and business and government leaders to Brisbane from September 20 to 23. With seventeen separate streams, the conference covered a vast array of topics with some sessions attracting only a few, while others were packed out. My session titled: *"ICT Leadership & Governance: Building a resilient organisation in a rapidly changing world"* was well received by a fairly substantial audience and laid the ground for much follow-up discussion, including the comments made to Senator Kate Lundy, described in this edition.

A significant Queensland Government agency took time out for a two hour briefing on ISO 38500 for its entire executive team on September 23rd. This is a very strong pointer to a significant increase in interest in the guidance in the standard, emanating from the same state that showed us so recently how not to implement payroll projects. The interest is a timely and very positive response and, ideally, will result in significant follow-up activity. Can Queensland, having provided a significant negative case study ([The Infonomics Letter, June 2010](#)), now also provide a very positive case study for change and adoption of ISO 38500?

September 24th saw a small but highly motivated group participate in the WCC-linked ISO 38500 masterclass. Feedback from participants was, as is generally the case, extremely positive. They said:

- *"A quick way to familiarise yourself with a framework that is gathering momentum and will provide significant power for your organisation";*
- *"Go to this course and learn about governing IT without anything technical";*
- *"Very good coverage of corporate governance of IT from a business perspective – comprehensive coverage of this topic area";*
- *"Clearly explains the application of ISO 38500 in an interesting, non-technical manner";*
- *"It provides a set of practical tools to explain and implement the standard".*

Coming Events

One of the central pillars of Infonomics activity is building awareness, understanding and skills in governance of IT and ISO 38500, for directors, business leaders and IT specialists. The Infonomics education program is continually evolving, includes classroom, conference and open access events, and is

frequently organised in conjunction with business partners operating around the world.

October 5: Melbourne, Australia: [ACOSM2010 - The Australian Conference on Software Measurement](#), in conjunction the International Software Benchmarking Standards Group's (ISBSG) Annual Workshop. This session will be tackling something different – *"Measuring the Unmeasurable: Governance of IT"*.

October 22: Melbourne, Australia: Industry workshop with Monash and Deakin Universities: ["Recognising the Elephant in the Room: Key ICT Governance Issues for Australian Organizations"](#). This invitation only seminar is being hosted by Monash University. It aims to provide researchers from the management schools at Monash and Deakin with insight to the views and behaviour of business and government leaders in relation to setting the agenda for, and extracting the value from use of information technology. For more information and to obtain an invitation, please [contact Mark Toomey](#).

October 25 - 29 (TBC): Madrid, Spain: ISO 38500 Two Day Foundation Class in conjunction with a leading university – promotion of this event is being handled by the Spanish organisers.

Would you like to have an ISO 38500 class in your region? [Contact Mark Toomey](#) to organise one.

New Elephants

Just over a year after [Waltzing with the Elephant](#) was launched at a glittering cocktail event organised in conjunction with the itSMF Australia conference, the first print run is sold out. No, it's not on the best-seller list – the first run was far more modest. But with paperback and PDF copies both ticking over well, there are now several hundred copies of the book in circulation. The just-in-time approach to printing has worked remarkably well and the first order to be supplied by the new print run will wait just a couple of days longer than normal for shipment to occur.

Waltzing with the Elephant has been sold to readers in, at last count, more than 24 nations, on every continent. Within its first year it made its way into quite a few university libraries, and conversations are now moving toward it becoming a recommended text in certain advanced courses. Its influence is clearly growing.

Waltzing with the Elephant has its own [LinkedIn group](#) in which readers can discuss their views. Recently, Miguel from Spain said: *"Regarding book's clarity a weekend (48 hours) was time enough to "convert" one of my colleagues into a true believer and disseminator of the Governance message. Before reading the book, this guy had been always very critic with the need of adopting Good Corporate Governance of IT"*.

Thanks Miguel.