



Looking Deeper

Welcome to The Infonomics Letter for October 2010.

These days, there is no shortage of raw material on which to base discussion of how organisations might better govern their use of IT. One merely needs to lightly monitor the press for ongoing stimulation around the topic of failure.

When discussing governance of IT, I tend to frame the drivers for better governance around the failures that occur – pointing out as should be obvious, that better direction and control should have averted the various cases. Sometimes, I am challenged on those points, with a request for positive case studies.

Well, I'd love to be able to present them. But there's a real challenge in that regard: how does one find positive case studies where the subject organisations are prepared to share their secrets? The chairman of one bank told me some time ago that their highly effective system for governance of IT gives them a significant competitive advantage, and that they simply would not give away their hard-won advantage by talking openly about how they do it. I know how they operate, and it's very good – but I can't tell anybody about their model either!

So while I would love to have opportunities to understand and explain case examples of very effective governance of IT, the reality is that we will probably have to continue learning from failure for some time to come. Perhaps when good governance becomes more pervasive, with far more projects delivering intended outcomes and far fewer organisations suffering loss as a result of avoidable operational breakdowns, then we will be able to shift emphasis and explain empirically measured good practice in governance of IT.

Thus we look further at the experience of Virgin Blue, which was front of mind for the September edition. In "Oops – Sorry! a Virgin Update", we discuss recent information about the consequences of the failure, including significant impact on profit and share price. We draw a parallel between the aviation industry's remarkable ability to dispassionately analyse and learn from failure, and wonder whether we might ever see an "Institute for Transparent Analysis of Information Technology Failures".

Then in "Service Failure" we build a more general discussion of how ISO 38500 might be used to guide better approaches to outsourcing decisions.

Finally, we take a brief look at "Culling obsolete IT".

Enjoy!

Mark Toomey
31 October 2010

Oops, Sorry! – a Virgin Update

[Last month](#), I wrote about the reservation system failure at Virgin Blue, Australia's second biggest airline. Using very conservative techniques, I estimated the cost of the failure at \$3 million. Subsequent press puts the actual number at between \$15 m and \$20 m. This is around 15% of the company's most recent year's profit figure, and certainly not trivial. Moreover, at the time of the incident, the share price fell by around 3%, making it clear that investors were not impressed.

There was plenty of additional press discussion of the crash in Virgin Blue's reservation system during October, including speculation as to the cause. Fingers have been pointed at a data storage system which is, if one believes the text, supposed to be failure proof. I guess that just goes to underscore the relationship between the sales pitch and the delivered performance, and makes us wonder if anybody should ever believe a claim that any particular machine (for that is after all exactly what a computer is) will never fail. The stories also point to a lack of testing of the procedures for switching to the fallback systems – a scenario that prevails in far too many situations.

Virgin Blue may be able to claw back parts of its monetary loss through legal process. But surely such clawback cannot ever compensate them for the impact the event had on the airline's brand and public reputation, the impact on the loyalty of their customers, and the impact on their personnel who had to deal with an overwhelming situation. Legal redress must surely, in this case, be seen as a very poor second in terms of outcomes. Once again, it is worth emphasising that appropriate questions such as those presented in last month's Infonomics Letter, asked by the board and top executive of the company, should have revealed that preparations for major system failure were inadequate, and that there was unacceptable risk of business disruption as a result.

And what of Navitaire, the Accenture subsidiary that provides the system for Virgin Blue? What has this event cost that company in terms of lost revenue, reputational damage, extra work, legal costs, higher insurance fees and potential costs of liquidated damages? Could that company have avoided all such consequences by asking its own questions of itself, and by extending its disaster assessment into the domain of its customer? Could, and should it have helped Virgin Blue by encouraging regular checking of the airline's own awareness of risk and readiness for interruption?

Sadly, the likelihood is that even if these questions are asked, their answers will never be made public. This reflects a major difference between IT failure in

the public sector and that in the private sector. As we saw in the case of Queensland Health, public sector IT failure results in audit reports and other reviews that are put on the public record, and from which significant lessons can be learned about how to avoid similar failure in the future.

It is in this regard that the IT industry exhibits a fundamental difference from the aviation industry. When an aviation failure occurs, there is a long-established and robust system for dealing with the failure – ranging from initial reporting, through rigorous investigation, on to prompt corrective action, and finally, transparent reporting. Whether the incident is a minor mechanical failure, an operational incident that creates danger to aircraft and their occupants, or a crash, the protocols ensure that ego is removed from the system and the myriad potential factors are assessed. Where mechanical faults are detected, even as secondary elements or outcomes of the incident, there are immediate actions to eliminate these faults from the fleet. Where human behaviour is identified as contributing, immediate steps are taken to increase knowledge and awareness, improve training and otherwise limit the potential for repeat occurrences. Outcomes of investigation into aviation failures are almost always widely published for the benefit of the industry – constructors and operators, and travelling public. They are open to scrutiny and they can be used by individuals and organisations as a tool for learning.

There is a lesson in aviation for information technology. Today, in many ways, lives and livelihoods depend on information technology. As individuals, as communities, as nations and as the entire world, we need the information technology on which we depend, and the people who plan, build and run the social, business and administration systems that are founded on the information technology, to be secure and reliable. We need them to learn from their mistakes and from each other so that, just as aircraft and aviation have become safer as that industry has increased in its workload, information technology and its diverse uses also become increasingly safe and effective.

Is there a case in our world for a new international organisation – an Institute for Transparent Analysis of Information Technology Failures?

I look forward to your thoughts.

Service Failure

The Virgin Blue situation is just one of many where a failure has occurred as part of an outsourcing arrangement. It's not by any means the first and there are likely to be many more. The problems experienced at Queensland Health (see [The Infonomics Letter, June 2010](#)) with its payroll project also came in the context of outsourcing – in this case

a major IT company that was contracted to undertake the project on behalf of CorpTech.

It doesn't take too much digging to discover many more case examples of outsourced IT that has gone wrong. And even when the issues have not reached the press or the courts, there are many users of outsourced IT who are far from happy with their experience.

Suppliers of outsourced IT can be unhappy as well. Not too long ago, while waiting for an international flight departure, I was talking with two people from a major IT services company, who were at their wits end with the bad behaviour of their client – a company that had contracted aggressively for minimum price, yet demanded premium service, including infinite expandability on workload without paying a penny more.

But to be balanced, there are also cases where outsourcing arrangements are working extremely well, and the parties are working very effectively together.

In recent times, we've explored the application of ISO 38500 principles to various situations – the Australian National Broadband Network in [April 2009](#), the IT environment in your home in [March 2010](#), the Queensland Health Payroll project in [June 2010](#), planning for the nation in [July 2010](#). So it probably makes sense to explore how ISO 38500 applies in an outsourcing context as well.

This is far from an exhaustive discussion of ISO 38500 in the context of outsourcing. For a start, there are many different contexts for outsourcing – from the simplest purchase of a completely standardised service from an internet based provider, through infrastructure provision and management, application development and maintenance, systems integration and on to business transformation and complete business process outsourcing. No doubt it would require a substantial book to cover all the variants. Indeed, [Waltzing with the Elephant](#) includes extensive discussion of outsourcing as part of its chapter on the ISO 38500 Acquisition Principle.

The principles can be applied at many levels. This discussion aims to take a very broad view and stimulate further in-depth analysis.

Responsibility

Information Technology is a tool that we use to run our organisations. For our business to be efficient and effective, we need IT tools that are also efficient and effective, and this is one of the primary reasons why organisations outsource – they believe that specialists can provide more efficient, more effective IT than they can provide for themselves.

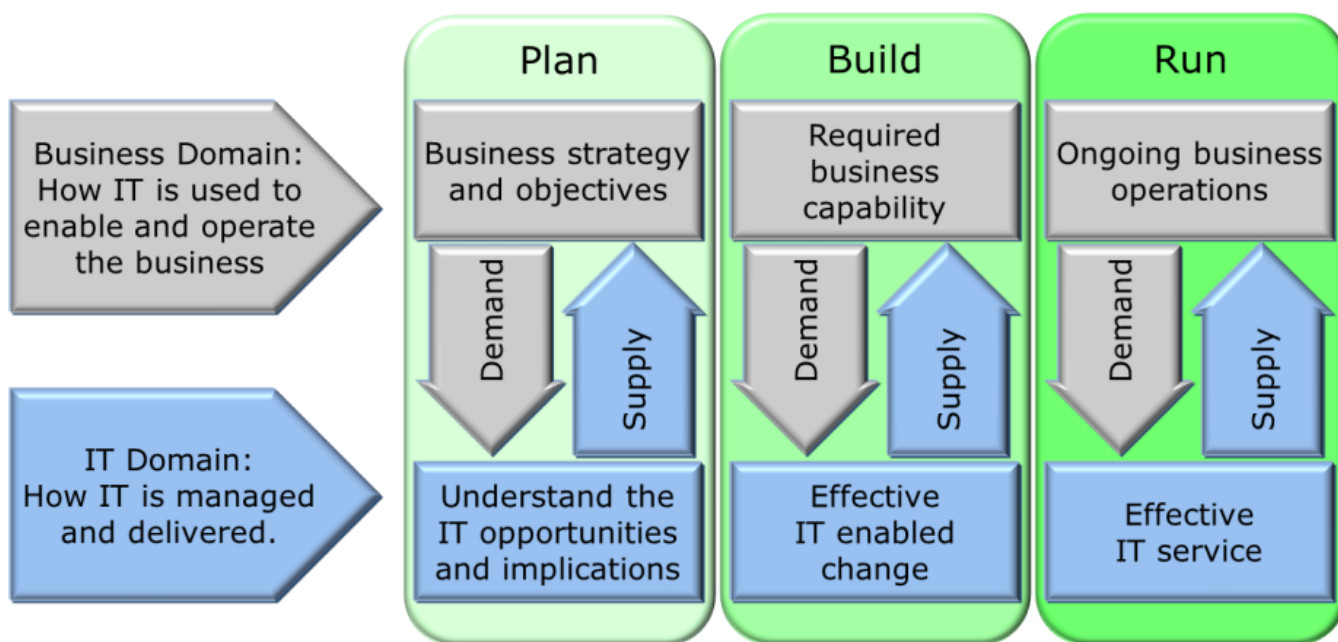
But efficient and effective tools that are used the wrong way, or that are the wrong tools, will never deliver an efficient and effective business. Regardless

of the skill and capacity of the outsource provider, there can never be a successful relationship when the buyer of the service does not take responsibility for properly using the service.

It is often said that outsourcing does not and can not remove the responsibility of an organisation for making appropriate business decisions about how it will operate, for properly implementing change, and for running its business effectively. The diagram below illustrates clearly the base division of responsibilities in any IT supply environment.

scope of plans ranges from the earliest determination of the strategy for the organisation, through to the specific arrangements for supply of IT services and capabilities.

When outsourcing IT, it can be very easy to lose important elements of IT capability when moving other parts to an external provider. There are many documented cases, for example, of organisations outsourcing maintenance of their established systems and making long term workers redundant, only to then discover that those long term workers held



I heard recently of an organisation which outsourced its IT and in doing so ceded total control of its systems to the supplier. Effectively, the supplier has gained control of its customer’s business strategy and objectives. Now, if the organisation wants to change the way it does business, it can only do so if its outsource provider agrees to make the changes to the IT systems. In effect, the company has ceded total control of its future development to its supplier, and now it’s in trouble because the supplier is being rather less than cooperative.

ISO 38500 says clearly and simply that we must ensure that we have clearly understood and appropriately allocated responsibility for IT. In terms of outsourced IT services, it follows that there must be clearly understood and appropriately assigned responsibilities on the part of both the supplier of the services and the organisation acquiring the service.

Strategy

The ISO 38500 Strategy principle actually covers a very wide spectrum of planning matters – encompassing them in the simple statement that IT plans should serve the needs of the organisation. The

substantial and important long term knowledge not just of how the technology works, but of how the actual business operates.

Another common trap of misplaced planning expectations is the one of flexibility. Where in-house personnel may have been flexible in providing service to meet unusual circumstances, the same flexibility may not be available in an outsourcing arrangement unless there is explicit provision in the contract.

Ensuring that plans for IT that is provided in an outsourced context thus requires that there is a very clear and shared understanding, not just of what is provided in the arrangement, but what services are required by the buying organisation that are not included in the arrangement. At a minimum, and as illustrated by the diagram above, the buying organisation must thoroughly understand what IT capabilities it needs in respect of planning its business, what capabilities it needs in respect of building its future business capability, and what capabilities it needs in respect of running its IT enabled business. With such an understanding of all the capabilities required, the organisation can then make properly informed decisions regarding what it is outsourcing entirely, what it is not outsourcing at all,

and the capabilities which will be provided by a combination of internal and external resources.

Acquisition

Decisions regarding investment in and ongoing expenditure on IT are the key focus of the ISO 38500 Acquisition principle. It applies equally to new investments, business-as-usual expenditure and to dis-investment – the decision to run down and eventually retire an asset or a service.

The principle requires that investment and expenditure decisions are made for valid reasons, and on the basis of proper analysis. [Waltzing with the Elephant](#) presents five basic questions that any organisation should ask whenever it considers an outsourcing investment:

- **Objective:** What is the intended outcome?
What advantage or previously unavailable capability do you seek – what will be different to the current situation when the outsource arrangement is established?
- **Value:** Why is the outcome important?
What are the tangible, measurable benefits to be derived from outsourcing, and how will future performance differ from the current situation?
- **Approach:** How will the outcome be achieved?
How will responsibilities be allocated, how will the arrangement be managed, and how will transitions be conducted?
- **Performance:** How will progress and success be made visible?
What are the critical elements of the proposed service; exactly how is each service element measured and reported; and how will variations in demand be managed?
- **Risk:** How will the things that could go wrong be detected and controlled?
What factors could cause the outsourcing arrangement to become untenable, and what actions are to be taken to deal with such circumstances? What assurances are there that all of the contracted services, including those that are essential for business continuity and effective control, will be delivered, and what assurances are there that there are no unexpected omissions in the outsourcing arrangement?

These questions pertain to the outsourcing arrangement overall. They should be supplemented by very specific questions relating to the capabilities required and the offer made by the outsourcer. Asking such questions requires a quite detailed understanding of what is required – how the acquiring organisation uses IT and what capabilities it needs to

be successful. Rather than merely specifying the services to be provided, major outsourcing agreements should focus on the business outcomes and performance to be enabled by the contract, and the agreement should be set up to focus both the buyer and the seller on these outcomes.

Performance

Ensuring that IT performs well whenever required is the central topic for the ISO 38500 Performance principle. It's about far more than just operational performance of IT systems, although as illustrated in the Virgin Blue case, it certainly includes those issues.

It's easy to create a situation in outsourcing where performance is a matter for bitter dispute. Perceived (and real) poor performance is a frequent topic of legal argument as outsourcing arrangements come to grief. Unfortunately, this is a very negative perspective on performance – one that might be better supplanted by an approach that sees the parties working together to ensure that performance meets both real need and expectation, at a fair price for all.

When crafting the performance goals for an outsourcing arrangement, there should be consideration of both the supply and use contexts, focused on the business performance of both organisations. There should be clearly allocated responsibilities for achieving the desired business performance – where the performance may be measured in a variety of ways, including business growth. In situations where the IT is critical to business goals and performance, the outsourcing arrangements should go well beyond merely specifying the performance objectives and criteria – they should include the arrangements for assurance of supply and for dealing with the inevitable, if unlikely incidents where everything goes horribly wrong.

Conformance

Outsourcing brings a vast realm of new matters to think about in respect of formal rules governing the use of IT. These are addressed by the ISO 38500 Conformance principle, which says that organisations should ensure that their use of IT conforms to formal rules.

The rules to which ISO 38500 refers come from myriad sources – from government legislation and regulation, from contracts, from industry, and from internal sources.

Outsourcing arrangements are likely to have and to require formal rules. Some of these will relate to matters of decision making and dealing with disputes. With the advent of Web 2.0 services, the rules may specify constraints on what can be done with the service, and may also endow certain rights and

privileges on the supplier – rights and privileges that may not be appropriate to your organisation's situation. As more and more IT is being moved "onto the web" and "into the cloud", it is becoming increasingly important that the terms and conditions of the service being used are properly understood.

Moving IT "into the cloud" also raises many questions about data. While your organisation may not wish to own infrastructure or develop and integrate software, there can be no question that the data you collect is either the valuable property of your own organisation, or the equally valuable property of your customers, suppliers and others who have entrusted their data to your care. Outsourcing your IT almost certainly does not diminish your responsibility for conformance to laws and regulations pertaining to data. These laws, including matters regarding security against unauthorised access and disclosure, and whether data is allowed to be moved into other legal jurisdictions, should be carefully considered in any outsourcing situation.

Human Behaviour

The ISO 38500 Human Behaviour principle seeks to bring focus to the fact that IT matters create pressures on, and elicit diverse responses from people as individuals and as groups. Some of the human behaviour issues can be quite subtle, while others are readily understood through broad characterisations such as Maslow's Hierarchy of Needs.

In the context of outsourcing, it is likely that several different communities can be identified, each subject to different stress and therefore each likely to exhibit different behaviour. There is widespread awareness of the stress and response elements applying to people whose job is being eliminated as a result of outsourcing, though even those matters are still, often managed poorly.

But outsourcing now goes well beyond the mere transfer of work from internal resources to external resources and the resultant displacement of employment. The ready availability of web and cloud based IT services, for example, opens new opportunity for people within an organisation to access IT service that may have been hitherto unobtainable. It also enables people to make decisions about the use of IT who may not have sufficient understanding of the ramifications of such decisions. It can now be very easy for an organisation's data to become completely fragmented, to the point where the overall organisation situation can no longer be accurately ascertained. It's equally easy for data to be placed in an insecure environment, or moved into an inappropriate legal jurisdiction with perhaps significant consequences.

Service assurance

This discussion began with recognition that as more and more organisations outsource their IT, there are many examples of service failure. When we look inside the individual events of service failure, we are likely to identify many common themes for the failure, with all parties frequently bearing some responsibility for the situation.

There should be no doubt that, like electricity, IT is critical to the current and future operations of most organisations, regardless of their ownership or purpose. While many aspects of IT can legitimately be outsourced, the responsibility for determining how IT is used always rests with those who use it. The principles in ISO 38500, once properly understood, can be used to frame an effective governance regime around any outsourcing situation by ensuring that:

- Responsibility for decisions regarding the use (or demand) and supply of IT is properly allocated across the parties to a sourcing arrangement;
- Plans for use of IT are key drivers of supply and are well informed by an understanding of the opportunities and constraints in the supply;
- Decisions to outsource are made on a rational basis with full understanding of the risks and opportunities;
- Clearly defined performance goals are complemented by appropriate arrangements and shared responsibility for assuring performance and dealing with performance failures;
- Proper attention is given to understanding, formulating and conforming to the wide array of rules that can apply to use of outsourced IT;
- Behaviour of people is clearly and appropriately addressed in the design, implementation and ongoing operation any sourcing arrangement.

Culling obsolete IT

In many organisations, it seems that IT systems breed like rabbits – there can be many, many more systems than would seem appropriate to the nature of the business. Many years ago, while working on analysing the systems in use at a now-defunct airline, my team counted no less than four operational HR systems – each having unique and necessary functions that had been retained as successive newer systems were installed. As a result of saving money on partial deployment of new systems, the airline was bleeding through the ongoing operational and maintenance costs of the still-required systems that should have been replaced.

More recently, while reviewing the controls around IT in a number of educational institutions, it became clear that in addition to the core business systems, there were many small systems developed within individual departments. These systems were filling perceived gaps in the main systems, but were

creating their own problems, by limiting access to information, by operating inconsistently, and by being dependent on their creators for support and change.

During a recent lunchtime conversation with a colleague from days past, I heard that she is now responsible for identifying systems that should be culled from her organisation's portfolio. In this case, there are thousands of applications, ranging from core systems that have cost hundreds of millions of dollars each, to small individual systems built and used by a single individual.

What made her task challenging was that the culling assessment was being done by the IT department, with little or no engagement from business users. How could this be? How could one make a decision about the future of a system when one cannot discover whether it is used, why it is used, and whether it has any alternatives? I recalled another past colleague who, in the same organisation some fifteen years prior, had simply removed some systems from operation on the basis that if nobody complained, they were probably no longer required.

The discussion, as do many, circulates around the question of responsibility. In this case, just who is responsible for determining if a system has reached end of life and should be retired. In the [February 2010](#) edition, The Infonomics Letter discussed "The Evolution of the CIO" and extrapolated from that series of behavioural descriptors for organisations. Following the line established above in that discussion, we can see that IT systems do eventually fall into disuse. Effective organisations, particularly those classified above as "Relentless Cost Cutters" will have well established protocols for identifying not just when a system has fallen into disuse, but for identifying those systems which are no longer fit for purpose and which should be retired.

Many organisations regard the operational cost of IT to be entirely the responsibility of the IT department. This is a fallacy. While the IT department can influence cost, sometimes considerably, the decision to retain or retire a particular system is essentially one of whether to continue in, overhaul or exit a particular business capability. In other words, decisions to retire any given business system should be a business decision. The critical question then becomes one of finding a knowledgeable and empowered business manager to address the question and make the decision about when an IT system no longer justifies the cost and complexity of its continued use.

Recent Events

[ACOSM2010 - The Australian Conference on Software Measurement](#), on October 5 provided an opportunity to explain governance of IT to a new audience – experts in measurement of IT. The conference attracted an international audience and provided much interesting and sometimes entertaining insight to the power of effective measurement applied to IT.

["Recognising the Elephant in the Room: Key ICT Governance Issues for Australian Organizations"](#) drew a good sized audience comprising academics from several universities, consultants, IT providers and company directors. The outcomes of the seminar will be published in the near future and will be summarised for readers of The Infonomics Letter.

Coming Events – Planning 2011

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.

With the year winding toward a close and the Australian summer holiday season, the conference market is winding down and I have no further commitments scheduled for 2010.

It's been an extremely difficult year in many markets and there have been relatively few international training and conference events at which I have been able to explain what ISO 38500 says about governance of IT. I hope that as 2011 dawns, we will see strengthening economies beginning to drive new investment in IT, and an emergence of demand for insight about how to ensure that IT delivers appropriate value, with acceptable risk.

During recent weeks, I've begun exploring prospects for delivering education about governance of IT in South America, Canada and the UK.

My preferred approach is to work with partners in each region where I deliver education, sharing the cost and risk of running classes. I work with professional organisations, universities and with companies that have the credibility and reach to attract an appropriate audience.

If you would like to explore the possibility of having me speak at a conference, or deliver an ISO 38500 related training event, or both, please [contact me now](#) and let's get something on the planning agenda.