

# IT Governance – Redesigning the Board’s role

## *From IT Management to Systemic Governance*

### **Introduction**

In the last 30 years, the use of Information and Communications Technology (ICT) has undergone a radical shift in the way it is used in organisations – private and public – of any significant size. In approximate terms, in the period B.I. (“Before the Internet”) the use of IT was confined to accounting systems and what was then known as “data processing” – the automation of routine activity such as payroll processing or the capture and reporting of parts and materials. However, since the emergence of the Internet in the early 1990s, information management systems have been put to use in all areas of a company’s operation, from logistics to marketing, from finance to R & D, from manufacturing to customer management, and, ultimately, to the re-invention of a corporation’s entire business model.

This shift to the A.I. era (“After Internet”) has occurred gradually but it has been pervasive. While it has not gone unnoticed by IT professionals, or by business and the media, its real impact and significance has not been given the attention it needs. ICT now absorbs significant investments in capital and human resources. Unfortunately, the capacity of many - or perhaps most - organisations to provide adequate directional oversight to these investments at the highest level leaves much to be desired.

The reasons for this are both subtle and profound.

### **A brief look at how companies work**

It is worth reviewing briefly how companies actually worked B.I. and how the explosive deployment of ICT in the A.I. period has affected this picture. What follows may be seen as stating the obvious, but it bears re-examination.

#### ***Company activity – B.I.***

The “doing” side of a company’s business – operations – was largely handled by people. Sales, production and manufacturing, service and supplier management were functions involving large teams of people working with manual or semi-manual systems – paper, pencil, the typewriter and telephone.

The way work was actually performed had evolved slowly over preceding decades. Mass-production had resulted in production environments where work was itemised and made routine, with little or no opportunity for worker involvement in the design of how the job was performed.

The introduction of ICT enabled many of these manual processes to be made automatic. Examples include payroll processing, production scheduling, banking and account keeping<sup>1</sup>.

#### ***The transition from B.I. to A.I.***

As ICT came into more widespread use during the 1970’s and 1980’s, organisations realised that technology could embrace broader aspects of their operations. But to harness this technology effectively, companies also discovered that the way that their

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<sup>1</sup> The rapid decline in communications costs and the rise of the Personal Computer were specific technologies that enabled the automation of many new processes to be made economic for the first time.

staff worked needed to change. The processes of production, supply and delivery were increasingly studied and made more efficient.

ICT was introduced into many new areas of business operation. However, because ICT systems work in specific ways that are not easily changed, the people who used them were now required to work in new but clearly defined and systematic ways. And people demanded involvement in the design of the work. This twin development – the use of ICT and the redesign of work to make best use of the technology – meant that large swathes of business operations became increasingly integrated with the ICT systems that were now needed to run businesses.

This “redesign of work” is not as simple as it appears. It became focused in three key areas:

- People – their behaviour, their attitude to their work, how well motivated they were; in short how companies got the best out of their most important resource.
- Processes – the way work was done for best effect; the sequence of steps, what was needed as input at each step, what was produced, and how these processes were measured.
- Structure – the way work was organised for best effect; essentially, the organisation itself - which processes should be performed by which groups of people, how they were managed (or how they should manage themselves) and how the elements of the structure (the organisation) should interact to be most effective.

Already, at the end of this transition stage (which occurred from the late 70’s to early ‘90s – about 15– 20 years), companies were finding that the above three aspects (P, P & S) of the way people performed “doing” work were becoming increasingly bound into ICT. The use of various ICT systems was now just “part of the job”.

### ***The A.I. era***

The Internet and other developments radically accelerated this transition (which was already well underway) in the way ICT affected people’s work. However, it is easy but misleading to consider the Internet as just “more ICT”. The Internet represents a major transition point in the way that work is performed. This paper is not an appropriate point to explain these developments in any detail, but it is worth summarising three that are most significant. They are:

- Collaborative working – the ability of teams to work together on problems and their solution, across the globe and at different times. These teams can combine workers from multiple organisations.
- Customer engagement – the ability to interact, learn from customers in real-time, and to translate this understanding into new or modified products and services, again often in real time.
- Outsourcing – not just the outsourcing of a single large chunk of a company’s operation (such as the ICT asset itself) to a third party, but the passing-off of a myriad of small business functions to third parties, often in remote locations. These functions increasingly include aspects such as design, research and training – functions not initially seen as outsourcing candidates.

The cumulative effect of these and other developments has created the “extended enterprise”, where the boundary between one business and its upstream and downstream connections becomes blurred. These developments are changing the face of business. They would have been impossible B.I.

The effect is that in our A.I era, the pervasive aspect of ICT connects organisations to other companies, other geographies, other countries. And these connections are no longer ones that can be shut off if we feel like it. Their effective operation can be the cornerstone of our success, but can equally be at the root of a company's downfall.

### **How has the failure of governance affected organisations?**

A common occurrence, seized on by media, is the failure of yet another “computer”<sup>2</sup>. When an easily identified culprit is sought, the computer and its human advocates are again paraded out for all to scorn.

Let's look at some recent examples:

- **Heathrow Terminal 5**

The circumstances of the disastrous launch of the new Terminal 5 at Heathrow in the early summer of 2008 have been well publicised. A new baggage handling computer system was seen as the culprit. Yet the issues relating to this – such as the training of staff to use the new system – undoubtedly underpinned the failure. The lack of formal understanding of the way the “P, P & S” plus ICT need to be managed were clearly unrecognised by senior management of BAA, BA and others.

- **The NHS Care Records System**

The failures in this massive public investment are quite rightly the subject of much public scrutiny. The ICT systems (previously known as the National Programme for IT – NPfIT) are said to be several years behind and massively over the initial £6bn budget.

The ICT suppliers have been accorded much opprobrium. However, in the last 18 months it has been reported that the NHS has, belatedly, recognised its own shortcomings in being ineffective recipients of such a complex system. Accountability for making the changes (P, P & S again) in hospital operations has now been devolved to CEs of Trusts. Unfortunately, it's unlikely that they have been given effective training and tools to assist them in this task.

- **An Australian example: Australian Customs – Imports Control System**

As part of a major program to re-engineer border controls for export and import of all goods through Australian ports, the Customs Service developed completely new technology, replacing the complex systems that had evolved over more than 25 years. The new systems demanded that all importers, agents and shipping companies develop new working practices and complementary technology. But when Customs insisted on going live with its own systems, the industry was not ready and the ports effectively closed down for three weeks, until the old systems were brought back into action. Two enquiries, including one by the National Audit Office found extensive and needless failures in direction and control of the entire project, including a complete lack of clearly defined objectives.

The conclusion is stark: unless organisations become much better at dealing effectively with ICT, and in organising and controlling the attendant business change, these failures will continue, and much money – private and public – will be squandered.

### **Implications**

The collective failure of most organisations to understand how to deal with this transition from B.I. to A.I. at the most senior levels is at the root of many of our

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<sup>2</sup> Regrettably, the media is often the worst culprit in perpetuating a simple message on this subject – that it is a single entity called “a computer” that is at fault – not a computer system, and certainly not a combination of people/process/structure and ICT

repeated failings when managing ICT. The reason is simple but the solution is less clear.

This discussion has shown that the “P, P & S” are intimately connected with ICT; change one and the others are affected. Increasingly, the challenge, complexity and cost of changing one or more of these elements far outweighs that of changing the ICT.

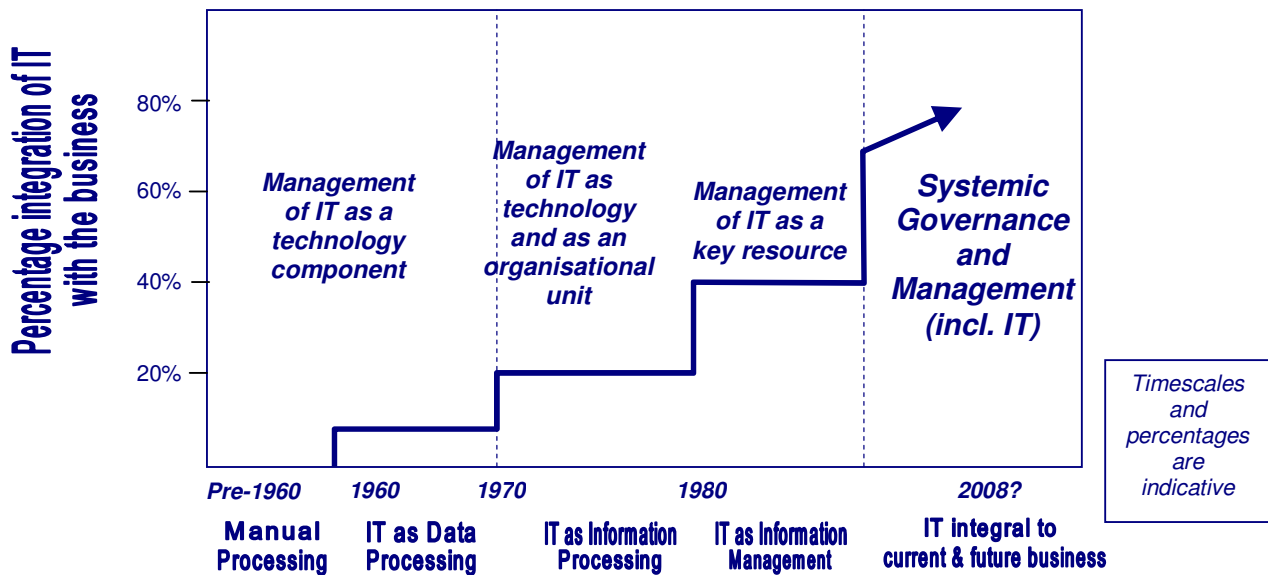
The reason for continued failure to manage ICT effectively is that it’s no longer about managing ICT, it’s about managing the integrated operation of people, processes, structure and ICT. These four components constitute a system. They cannot be managed or governed as individual entities.

**What is to be done?**

In summary:

Senior management oversight needs to shift from ICT Management to Systemic Governance

The following diagram summarises the transitions that the management and governance of ICT has undergone, and where we are now.



**Systemic Governance – Implications and Recommendations**

This paper has examined the reasons that effective oversight of the ICT function in many large businesses and government agencies has been ineffective and the serious financial consequences, both financial and in terms of reputation that can result from this.

The key conclusion that has been drawn is that organisations need to stop thinking about ICT as a separate entity and instead move towards Systemic Governance. System Governance recognises the deep but positive incursion that ICT has made into organisations and acknowledges that it can only now be managed by considering ICT simply as a component of the system that is “the operational business”.

Such a transition represents a major shift in corporate thinking. Several immediate implications are:

1. Board-level oversight needs to be given to the business viewed as a system. Boards must recognise that they cannot effectively provide oversight to the deployment of ICT as a separate and distinct element.
2. There needs to be a Board level accountability for System Governance. Boards may choose to set up a committee to perform this task.
3. A senior role – such as a Director of Systems Governance - needs to take accountability for the effective design, deployment and operation of people, processes and structure, and of ICT for the business as a whole. This would be a line role reporting through the CEO, working with delegated authority from the board.

#### ***The role of the ICT function***

The ICT function in a company operates essentially as a supplier of services to the business. In many instances this function sub-contracts part of this supply to third-parties. Over the last twenty or more years there has been significant progress in setting standards for the technical management of this supply. These standards, such as COBIT, ITIL and others have acquired international acceptance. This progress in managing the supply of ICT to the business in a professional manner is welcome.

#### ***Towards a new Systemic Governance framework***

Although ICT has made progress in getting its own house in order, there has been little progress in enabling the business (the users of ICT) to develop an approach to the governance of ICT as a business resource. This situation has however recently changed. The International Standards Organisation (ISO) has published a new standard for corporate governance of ICT. Crucially, this standard recognises for the first time that ICT governance needs to be owned by those with accountability for the delivery of an effective business system. In essence, this standard (referred to as ISO 38500), provides a “guidance system” for Boards to perform the role of Systemic Governance alluded to above.

#### ***Next steps***

Two organisations with a global perspective and significant experience in leading Boards to new ways of working have developed training programmes specifically to address the needs of Systemic Governance.

- Infonomics, based in Melbourne Australia, has been advising organisations at the highest level on the issues of IT Governance for more than 10 years. Mark Toomey, the Chief Executive of Infonomics was a major contributing author of the new ISO Standard, ISO 38500. Prior to setting up Infonomics, Mark occupied a variety of senior management consultancy roles with DMR Group, a leading international IT consultancy.
- BusinessNext Ltd, based in the UK, has been working with Boards and senior management on strategic issues for the last 8 years. Chris Ogden, Managing Director of BusinessNext has had significant experience in Information Systems, also with DMR Group.

Together, these two organisations are now working with Boards to provide education, consulting and implementation support as organisations commit to moving towards Systemic Governance.

Enquires are welcomed and should be directed as noted below:

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