

# DO YOU HAVE A PROBLEM?

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I made a number of observations in the introduction based on my experience in the IT industry. In this chapter we will explore these.

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## The IT Industry has a Poor Delivery Record

The IT industry has a poor delivery track record. Examples include:

- Ford's web-based supply chain management system. Abandoned – £200 m written off.
- McDonald's attempt to automate everything. Abandoned – \$170 m written off.

Certainly, grand schemes do not appear to work. The much-heralded CRM (customer relationship management) systems, which promised to send sales skywards by consolidating the corporate view of the customer, are a notable failure. US analyst Gartner, at one point, suggested that over 50 % of CRM systems purchased were lying unused.

Recently, in *The Economist*, IBM's head of government services states that about 85 % of government IT projects are deemed to be failures. The problem of delivery is not confined to the dramatic. Mundane experiences such as lost data due to random word-processor crashes mid-document are common.

Why is it that we are so accepting of poorly performing IT systems, but are up in arms when a toaster behaves inconsistently? Is it that consumer rights do not exist in the world of IT, or is it that the IT user is not generally sophisticated enough to demand a better service?

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Sadly, many individuals and organisations have become inured to the poor quality of the IT systems they pay for. Practically everyone has had a bad IT experience. I believe there are a number of reasons for this:

- The IT industry is young and is simply not mature enough yet to deliver technically sophisticated enterprise-wide systems.
- Information technology hardware is pretty reliable. That can be attributed to the mature engineering techniques used in design and manufacture. Sadly, engineering is a word that cannot be applied to software development. Unfortunately, it is the software that determines the value of the IT system to the user.
- Those tasked with delivering IT systems typically spend an adequate amount of time integrating these systems into the users' infrastructure, but spend little time considering how to integrate the system with the users and the business processes.
- Users are poor at articulating what they want, and IT people see this as an opportunity to increase the complexity of the solution. The user asks for a "mode of transportation". The IT department deliver a Ferrari – the user needs a bicycle.
- Information technology departments and the IT industry have little concept of public relations. They have allowed their reputation to become irrevocably and universally tarnished.

Information technology is too important to business and society to be in such bad shape. We need to get to a point where the term IT becomes associated more with innovation and value than risk and disappointment. Even professionalism would be a step in the right direction.

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## **Users are Generally Suspicious of IT People**

And the converse is generally true as well. Suspicion is underpinned by a lack of trust. I believe that as an industry we need to strive towards

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becoming trusted advisers, where our “customers” actually value our advice.

Very few technologists see their role in a service delivery context. The system administrator focuses on keeping the server running, the programmer is preoccupied with producing software in line with the constraints of the project plan. Whilst both of these objectives will no doubt be of benefit to the users, the emphasis on the technology suggests a “disconnect” between the technologists and the business imperatives. Thus the technologists are perceived as not interested in the business and thus not really part of “the team”.

The concept of the IT department has done nothing to dispel this feeling. Occupying a different floor is bad enough, but being in a separate building or separate country is not the best way to forge deep and mutually beneficial relationships. The build up in enmity in the user community towards the IT department ultimately causes the technologists to reciprocate, which leads to a downward spiral in trust.

The emergence of roles such as systems analyst and business analyst is in many respects a “sticking plaster” solution to get around the low mutual trust levels between technologists and users. Their role involves traipsing the “demilitarised zone” between the users and the technologists.

The users do have more than a little justification for feeling this way. I have already mentioned the IT industry’s generally poor record of delivery. But if we go back to the 1970s and 1980s, when mainframes ruled the Earth, printing a file was no trivial exercise. It involved submitting a “print job” to the IT department who would endeavour to give you the printout in 24 hours, but only if you spelt print correctly and used the correct form. The IT department was then in the “driving seat”, and seemed to enjoy their position of power. The arrival of the PC was like a virus as far as the IT

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department was concerned, and this was a critical turning point in the business–IT department power axis.

Even if many businesses have forgotten about the IT ‘service levels’ during the mainframe era, they will remember with deep suspicion the Y2K problem, which proved the perfect excuse for the IT department to demand a bigger budget. Suggestions that the business would collapse without this spend, coupled with extensive media exposure, caused senior executives to play safe and not risk a catastrophe. Today, senior executives cannot be sure whether Y2K was a red herring or whether their spend actually averted disaster. This lingering concern still scars the users’ perception of the IT department.

But perhaps worst of all was the dotcom frenzy. This is in part because the IT department was actually circumnavigated by the business. Something as funky as the web had to be owned by the marketing department, the head of which became the “new economy” head of IT. When the dotcom investment market ran out of “fools”, the subsequent collapse burnt the fingers of many senior executives. Their self-loathing at being caught up in the hype was vented by effectively sending the IT department “to its bedroom” (aka severe budget cut) for several years. Clearly, IT was in the bad books. But whereas this was a justifiable view to have with the mainframe, and a questionable view in respect of Y2K, it was quite unfair to blame the IT department for the great “dotcon”. Understandably, today the IT department carries resentment in respect of its unjustified and humiliating punishment

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## **IT is Unmeasurable**

Executives are frustrated that they cannot measure whether they are getting good value from their IT investment. They have generally steered away from becoming too involved in anything to do with IT, other than perhaps insisting that it costs too much, to give the impression that they are in control.

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Sadly, most executives are not. Somewhat like advertising, they know they have to spend money on IT, but cannot pinpoint where the value comes from in their spend. However, they can sense value in that, where relevant, no advertising leads to plummeting in sales.

Eliminating IT spend would have serious implications. No email, for starters (though that might lead to productivity improvements as a result of people actually talking to each other). But many business processes would have to be undertaken manually or mechanically, which would invariably be more expensive. And forget about making critical business decisions based on the data you hold. You would be flying blind. So, it doesn't take much intuition to recognise that IT is critical to modern business.

But what frustrates many executives is that they cannot attribute a number to IT value. This can and does send CFOs into paroxysms of confusion, as they grapple to find a number, ideally financially denominated, to include in their spreadsheets. The problem is that measurement attempts tend to be cost-focused. For the CFO, cost is an easy measurement, and so is comparing costs with similar organisations. Hence, the emphasis in respect of IT measurement focuses on tangible cost rather than intangible value.

Any attempts by the CIO to defend the IT spend will be viewed with suspicion by senior number-crunchers. The IT department needs to help senior executives understand the value IT delivers, and do so in an executive-friendly manner. Much like in a sales negotiation, the buyer focuses on cost, and the seller rightly focuses on value. The CIO needs to move the argument axis away from cost. And to do so they need to have a mechanism for measuring value.

Perhaps most important of all, the CIO needs to educate the board in respect of who ultimately is responsible for extracting business value from the IT investment.

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## IT Problems are the Fault of the IT Department

Given that many users perceive IT as some form of mystical, if somewhat unreliable, phenomenon, it makes perfect sense to them to take the view that any system or business process that has an IT element to it is obviously cursed, and will at some point fail. In fact, this mindset can work well for the owners of these business processes. They can blame all process failures on the IT department.

Information technology is not always blameless in such situations. Misinterpreted specifications and over-ambitious technology architectures are just two of the causes of IT-driven business problems. However, many IT-related problems have their roots on the business side of the fence. For example:

- New CFOs who, needing to assert their authority over the CIO, insist that a given enterprise applications solution be used across the business. This is a mistake. The business should focus on “the what” (business problem) and leave “the how” (technical solution) to the IT department.
- The desperate sales director, who believes that buying a state-of-the-art CRM system will help reverse the fortunes of the sales force. A perfectly good technological solution is put in place by the IT department, but the sales force has no intention of institutionalising their knowledge by keeping the CRM system up-to-date. Can you blame the IT department for that, any more than you can blame the telecoms service provider for a poor telesales function?

Somebody has to take the blame when such situations arise. Again, the question boils down to who should be responsible. Business processes should have business owners. Therein lies the answer.

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## The IT Industry Suffers from Low Self-esteem

How many technologists do you see holding court at social gatherings, where the attendees represent a typical cross-section of society? How many of us board an intercontinental aircraft quietly hoping that we will be seated next to a technical architect?

The numbers would not compare well against a supermodel, a rock star or a sports hero. I am exaggerating of course, and there are no doubt very attractive and charismatic technical architects, but these are, it is fair to say, statistically insignificant. I hope that this situation changes. The more attractive IT people are, the more attractive the IT industry will be to the next generation of impressionable career-seekers.

More often than not technologists are not extrovert. Hence the IT industry appears somewhat introverted and uninterested in what lies beyond it. Not a good characteristic for an increasingly service-based industry. Introverts have their place, and in many respects are more grounded than their attention-seeking compatriots. That aside, in my experience many people in the IT industry suffer from low self-esteem. They have a sense that whatever they do it is likely to be disparaged by the users. Introduce yourself as an IT person at a party and you have instantly united everyone, in that they all have a story to tell about how IT has at one time or another let them down. Attempts to defend the IT industry by explaining that there are, for example, limitations to IP addressing, or that distributed databases lack mathematical rigour, seem to trigger laughter in those who bother to listen. The defeated technologist has just had his or her confidence ratcheted down a notch or two.

Such encounters create resentment, and drive many technologists deeper into their hardened emotional shell. The move to offshoring has reinforced

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the perception that technologists are a commodity. The value IT delivers would appear not to come from the people who build and support IT systems.

But what if tomorrow's technologists became the new rock stars, or at least the new business "Masters of the Universe"? A morphing of technologist to what might be called a hybrid-business technologist, with an impressive combination of technology skill and business savvy. Imagine an IT department made up of such people. Their ability to hone technology into business advantage would surely be more valuable than having an IT department that is more representative of a technology rest-home for the business-indifferent.

But look beyond that to a time when practically everyone at the party is such a person, it has become the standard across the business, and they are all laughing at the "old-school technophobic business guy". That day is coming.

However, the reality is that the nerds will **not** one day "inherit the Earth". Nerds, geeks, propeller heads, call them (us) what you will, are the result of a Darwinian split that came about with the birth of the first IT systems. These people were an "evolutionary" step from the mathematical sciences genus; mainly physicists and mathematicians who were attracted by the potential power of these "super-calculators" (aka mainframes).

The sophistication of the computers coupled with the unsophistication of the tools literally required rocket scientists to use them. Information technology has moved on. The tools today are much more sophisticated, and increasingly business-oriented. But Darwinism has yet to take effect on the people side. The future of IT, it would appear, rests in the hands of hiring managers and recruitment agencies. Choose these carefully and reward them well. They will determine your share price.

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## Many Businesses do not Know what Business they are in

This may seem like a harsh and inaccurate statement. And if you support Nick Carr's perspective that IT doesn't matter (*Harvard Business Review*, May 2002), then inaccurate would not even start to describe how off-the-pace I am. By the way, I happen to feel that Mr Carr's view captured the zeitgeist of the "technology nuclear winter" that followed the dotcom gold rush. Nonetheless, in my view it was an emotional rather than a thoughtful conclusion to draw.

My point therefore is that IT does matter, and it matters to the extent that IT is increasingly core to many businesses. What gives an airline its competitive advantage? It is not the type of planes they use or the service level of the baggage handlers, though they do have the potential to negatively impact value. I would contend that the airline company's competitive advantage comes from its knowledge of its customers and its ability to price in accordance with the market and still make a profit. This requires sophisticated use of IT. From this perspective, the airline business starts to look more and more like an information management business. Once that fact is recognised it makes perfect sense to:

- Insource all differentiating IT systems.
- Outsource all non-differentiating systems. For example, planes.

In such a business, there should be IT representation at board level. And the most successful organisations will be those that have a CEO who has come up through the IT department. This line of thinking is apocryphal to boardrooms of a certain age, but the iPod generation will find this much easier to come to terms with.

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Another example is banking. There are many banks unaware that they are simply IT departments with a few retail outlets sprinkled around the planet. Those banks that are not big investors in IT may as well be in the property business. And those that are big IT investors, and thus have a greater chance of business sustainability, should outsource their real estate and concentrate on their core business, which will be to usher their customers online in order to continue making money despite declining margins.

When Bill Gates once pronounced that “banks are dead, but banking isn’t”, he wasn’t referring to the death of the high street outlet, he was referring to the fact that if the banks were not careful their lunch would be eaten by more agile tech-centric banking intermediaries. Mr Gates’ vision is unfurling. The major banks still exist, but they are increasingly being decoupled from the customer. Intermediaries such as payment service providers and account aggregators are pushing the banks into the shadows. Some banks may as well stop wasting money on their branding.

The smart banks are adjusting to the changing market. Those organisations that want to be the Pac-Man rather than the pellet recognise that they need to change their culture to be more IT-centric, so that the conditions are right to enable the innovative use of IT. For some organisations this is a thought too far.

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## Other Problems

### Governance

Both private- and public-sector organisations are expected to practice good governance. In a perfect world every organisation would impose and adhere to its own high governance standards. Enron, Worldcom, Parmalat to

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name but a few have reminded us that it is not always the case. This has prompted external regulatory bodies to impose external standards in certain markets.

Sarbanes-Oxley is an example of compliance legislation, where the burden of adherence is significant, and the consequences of non-compliance are both deep and dire. Prison has become a hot topic amongst the boardrooms of many US quoted companies. Regardless of whether or not this legislation is an over-reaction to the fear that a lack of faith in US industry will lead to a collapse in the associated stockmarkets, it exists and it must be taken seriously. As organisations embark on the path to compliance they soon discover that the controls needed to demonstrate good governance are underpinned by IT. Thus the robustness of those controls is in direct proportion to the quality of the IT department.

Given that the IT department is generally treated as a “black box”, then this moves IT from being an ancillary service of no great import to a major potential business risk. To establish the level of risk, the executive team has to open the lid of the box. And in many cases what they see will shock them. We all know the term engineering, and associate good engineering with reliable brands such as BMW and Bang & Olufson. In fact the IT industry contains many exemplars of good engineering practice, though the good practice is associated more with the world of hardware.

Software engineering is another story. Software, being more malleable, is generally subjected to less testing, with little to no design and scant analysis. In fact, software engineering has become a term associated with a narrow band of the software spectrum, namely real-time development, where the consequences of software failure are profound. Imagine a vendor having to recall half-a-million mobile phones because of a software glitch in the embedded call management software. Real-time developers practise engineering. The rest of the software market generally doesn't. In some

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cases vendors decide to let the customer/user inadvertently do the testing by releasing the software prematurely. This saves time and money, for the vendor at least.

Today, hardware is a commodity. The real value of the IT investment lies in the software. If that software has been thrown together rather than being engineered, then the quality of the governance controls is questionable. From my perspective, software engineering was abandoned in the 1990s. A more casual approach to software development followed. The IT industry will ultimately benefit from the increased focus on corporate governance, which has in turn spawned the concept of IT governance. In my view many IT departments will soon be trawling through their archived documentation looking for good practice manuals, which will in turn trigger a resurgence in “software engineering methodologies”.

The IT investment needs to be managed with care. Reckless software development undermines that. Many IT departments have a lot of work to do to remove themselves from the executive risk register. My concern is that the opening of the black box, and the associated disillusionment with what is inside it, could trigger a new wave of negativity towards the IT industry which could trigger the next technology ice age.

### **Lack of boardroom voice**

If the CIO was given a place at the top table then the problems above would have been less likely to fester. Most organisations have not grasped this and will continue to treat the CIO as a miscreant son, who from time to time is called into the library for a stern talking to. This has to change, though it is unattractive to many executives, given that the average CIO behaves more like a mature techie than a politically aware businessperson. Such CIOs seem to talk in IT jargon, and talk in terms of IT projects rather than business objectives, profit and risk. Consequently,

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they are not welcome. This is a job for Human Resources (HR) – to groom the CIO to be equipped for the executive team. In fact, it would be good practice to avoid taking on a CIO unless they are in possession of executive DNA.

So these issues will continue to fester until the next-generation CIO becomes the norm rather than the exception. Smart CIOs have tried to catch the CEO's attention, as they recognise that IT has a role to play in creating competitive advantage. But trying to do that via the CFO, whose eye is on cost rather than innovation (which is defined as "a type of risk" in financial glossaries), is a real challenge. This arrangement must change.

## **Outsourcing**

This lack of IT voice and a general disdain for IT has made it easier for organisations to entertain the idea of outsourcing. Globalisation has made offshoring a natural extension of this. But outsourcing the black box in its entirety may give the executive team a sense of relief, in that they have handed over their IT risk to an "expert". But as we have seen and will continue to see, this is not an intelligent move.

There are many reasons why this is not a good move. Not least when your core business is information management (see above), but also by outsourcing all your IT you have in effect put your corporate governance in the hands of a third-party outsourcer, as they now "own" your controls. Any CIO could have told you that, but not when they are several layers of management away. Over time, organisations will realise that only specific activities should be outsourced, and certainly not the business controls.

The mistakes of the board in respect of outsourcing will deepen the distrust they have in technology. Overzealous vendors are certainly a guilty party. The lack of strategic counsel in respect of IT is the real problem. The lack

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of trust between the CIO and the boardroom meant that any attempts by the former to flag this were misconstrued as an act borne out of self-interest. Such organisations typically receive their guidance from the outsourcing vendor.

## **Problems, problems**

There is clearly no shortage of problems that reflect organisational mismanagement of IT in respect of delivering business value. It would be too easy to blame the IT department, the boardroom, the users and/or the suppliers for this sad state of affairs. In defence of all stakeholders, the IT and business market have undergone seismic changes over the last 20 years. Remember that before 1993 there was no colourful World Wide Web and there was typically one PC per office as opposed to one per desk.

The IT industry has delivered the tools (weapons?) of the post-industrial era. We are in the midst of a revolution. Nobody is getting killed, but people are certainly getting fired, as globalisation, governance and the empowered customer demand that the bar be raised in respect of business performance.

Organisations are at varying stages of recognising the role IT has to play in remaining competitive in the Information Age. But even those that are evangelised in terms of the role IT has in their success, feel hamstrung by the lack of trust across the business-IT divide. It will take a lot more than a series of lunchtime reconciliation sessions to correct this situation. Organisations that fail to address this will find it difficult to remain viable as market pressures, coupled with their inefficient use of IT, take their toll. Countries/economic regions that fail to grasp this will become economic backwaters, though from a tourism perspective these locations will become areas of historical/archaeological interest.

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## So what hope is there?

I believe that there is a way forward, but it will require a substantial change in the way that IT and business interact. Previous attempts at this include:

- Bridging the business–IT divide.
  - Keep the two parties separate, even running on different clock speeds, but have intermediaries linking them together. This ultimately enabled the IT department to do its own thing, and from time to time help the business.
- Business–IT alignment.
  - Keep the two parties separate but endeavour to have them running at the same clock speed. This ultimately led to the IT department being told what to do without any say in the matter.

Neither has worked, for obvious reasons. I am promoting the concept of business–IT entwinement, where the IT department becomes a partner in the business and has a voice in the determination of business strategy.

Entwinement covers much more than simply promoting the CIO, though this would be a very positive start. As mentioned in the introduction, I have developed a seven-step process to maximising the business return on IT investment, which is underpinned by business–IT entwinement. There are no shortcuts, all seven steps must be taken. These steps are detailed in the next chapter.

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