The Technology Garden

Cultivating Sustainable IT–Business Alignment

Jon Collins, Neil Macehiter, Dale Vile and Neil Ward-Dutton

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Contents

Preface

What is it about Information Technology (IT) that makes it so difficult to deliver? Of course, technology can be difficult and complex, but then, so can be engineering, genetics or any number of other disciplines. As we started developing the ideas in this book, we spent some time thinking about what was going wrong. Indeed, the entire volume could have been about war stories, tales from the front lines of IT failure, but that wouldn't be too helpful. Instead, we turned our cogitations to the causes of that failure and what could be done to address them.

There is frequent talk in computing circles that the mainframe guys had it right in terms of computer design and that very little has been invented since then. While plenty of good might have come out of the 1970s, perhaps one less-than-positive legacy is the notion that computers and other technologies can, in some way, be built to last: Once deployed, they can be left well alone. The last couple of decades have shown us that nothing could be further from the truth; however, many organisations still act as if it were so.

Even the failings of IT are generally bounded within discrete projects – like medieval cathedral builders or motorcar manufacturers, the suggestion is that the end result will somehow be fixed in time. The computing press is full of examples of projects that have failed to deliver, but this attention masks the bigger problem: Even projects delivered to time and to budget deliver a disappointing service and poor returns on the original investment. Perhaps it is a psychological trait, a combination of denial and making do, which leads to the belief that things will be different this time, and that somehow, IT will start to fit the definition of what it should be, rather than what it is known to be.

Reality suggests that IT is not a cathedral, a bridge or a car. Instead, it is a combination of technologies that count more than individual components; the components are constantly evolving and changing, and the combinations are infinite, as they are modified to suit the similarly evolving and changing needs of the business and to exploit the potential of new capabilities. IT must scale all the way up to support the needs of the largest organisations, and still function for the smallest. In this respect, it is more like a garden, in which combinations of technologies are created, sown, nurtured and razed in turn to suit the needs of its occupants.

We set out to discover how to align IT with the business. To do so, we talked to people at the front line of the IT–business interface, with real experience of the failings of technology delivery and the wherewithal to do something about them. In discussions, we uncovered six principles that can be applied by organisations large and small that are struggling to align the investment in and delivery of IT capabilities with business priorities and objectives in the face of ever-rapid business and technology change.

Two common themes permeate the principles and the way they are applied: sustainability and trust. Sustainability – key to any successful garden – is a crucial protection against the risks of the one-shot approaches frequently applied to IT. A lack of sustainability has resulted in not only disappointment but also inordinate waste, as new technology deployments have almost immediately become 'legacy' and, over time, resulted in IT assets being written off before their time. Meanwhile, the outcome of such failings is one of diminished trust: Just as few will venture into an overgrown garden, neither does the business want to engage with IT until it can prove it is an asset to the organisation, not just a drain on resources.

There can be no trust without engagement, without open dialogue. We hope you can benefit from this book whichever side of the IT/business divide you find yourself on, but perhaps the real test is how well it catalyses the conversation between the two sides. We welcome your feedback: Please do visit our site at http://technologygarden.wordpress.com, where you can post any comments you may have.

   Jon Collins, Neil Macehiter, Dale Vile and Neil Ward-Dutton

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In addition, there are a number of sources of thinking that we would like to mention:

- Nicholas Carr for his contrarian views regarding the business value of IT to provide an alternative perspective – http://www.roughtype.com

- Andrew McAfee of the Harvard Business School for his insight into positioning IT in a business context – http://blog.hbs.edu/faculty/amcafee/

- J.P. Rangaswami of British Telecom for helping us to think outside the traditional boundaries of business IT – http://confusedofcalcutta.com

- John Hagel for his thoughts on changing business models – http://www.edgeperspectives.typepad.com/

Beyond the interviewees and helpful sources, we would also like to thank our own partners and families for their forbearance and understanding: Claire and Oscar Ward-Dutton, Sam and Bex Macehiter, Helen, Jack and Laura Vile, and Liz, Ben and Sophie Collins.

About the authors

To create a volume of practical advice, the authors have used a combined experience of over 80 years in Information Technology, from a variety of backgrounds including IT management for end users, IT systems development and sales for vendors, and business and IT consultancy. The authors have worked together in the past, and continue to do so in the present, sharing a remit to cut the Gordian Knot that is at the heart of IT–business alignment.

Jon Collins has nearly 20 years of experience in IT. Jon is the service director of Freeform Dynamics, a leading IT industry research and analysis company. He has worked as an industry analyst for over 7 years, for companies including Quocirca, Bloor Research and IDC. He has acted as an advisor to leading vendors including Cisco, EMC, IBM and Microsoft, and to large IT user organisations in the Government, Telecommunications and Financial Services sectors. Jon speaks regularly at IT conferences and writes columns for a number of trade publications including Silicon.com, The Register and Computer Reseller News. He has an end-user background, having worked as an IT consultant, network manager and software engineer for companies such as Admiral Management Services Ltd, Alcatel and Philips Electronics, respectively.

Dale Vile is one of the founders of Freeform Dynamics, an analyst firm that has built its business around the concept of community based research. This innovative approach is

used to harvest specific views and experiences within the broader community of business and IT professionals as a foundation for deriving more general advice and guidance on the effective application of IT in a business environment.

As an active industry analyst, Dale is a prolific writer and his views and opinions are widely published in print and online, reinforced by his extensive experience in both end-user and vendor environments. In the first part of his career, he held positions as developer, architect and project manager, delivering systems for companies such as Glaxo and Heineken. He later moved into the IT vendor community, working in various consulting, business development and management roles at Nortel Networks, SAP, JD Edwards and Sybase.

Dale has worked as an industry analyst since the year 2000, initially with Bloor Research, and later with Quocirca, where he co-managed the initial growth of the organisation, then developed and ran the company's core primary research business until co-founding Freeform Dynamics in 2005.

For further information on Freeform Dynamics, please visit www.freeformdynamics.com.

Neil Macehiter is one of the founders of Macehiter Ward-Dutton, an IT advisory firm focused firmly on the challenge of IT–business alignment. He has almost 21 years of experience in the IT industry, having worked in consulting, product and technology strategy roles for vendors including Oracle, Sybase, Sun Microsystems and Autonomy and as the development manager for a telecommunications provider. Neil joined Ovum's consulting practice advising clients on a variety of IT strategy issues and then became its director of software infrastructure research.

Neil Ward-Dutton is the other founder of Macehiter Ward-Dutton. He has over 15 years of experience in the IT industry – in a mixture of consulting and industry analysis roles. He started his career as a business analyst at ICI, and then spent a number of years as a software engineer working for one of the UK's leading software consultancies at the time, Praxis. Not too long after Praxis was bought by Deloitte Consulting, Neil realised he was best suited to small companies and left to join Ovum as a junior IT industry analyst. In 10 years at Ovum, he rose to direct all the technology research programmes of the company–but his ambition turned to new pastures, and in early 2005 he cofounded Macehiter Ward-Dutton.

For further information on Macehiter Ward-Dutton, please visit www.mwdadvisors.com.

1

Introduction

This book offers a practical guide to you if you want to improve the return your organisation gets from its IT investments and ultimately if you want to use IT to help drive transformation in your organisation. The book distils what we have learned from conversations with practitioners into six common-sense, actionable principles, based on best practices, which you can use to improve alignment between IT and business priorities, goals and strategies.

This book is focused on improving the situation as it stands today. It is not a collection of impractical theories or a set of best practices from a single organisation, which cannot be broadly applied. Throughout, it incorporates a wide variety of examples, covering both where things have worked well and where they have failed, from which you can draw based on your situation.

What on earth has IT got to do with gardening?

If everything in IT was working even mostly as it should be, this book would not be necessary.

As things stand, it is.

IT doesn't matter?

When former Harvard Business Review editor Nicholas Carr posited 'IT Doesn't Matter' in 2003, he was making the point that component technologies are commoditising and thus available to all. It's true that, for established companies (as opposed to 'green fields' such as Google, say), the acquisition of IT confers less in the way of strategic advantage than it used to. It is not like the old days, when you could steal a march on your competition as did, for example, American Airlines with its Sabre reservation system or Dell with its online ordering and fulfilment systems.

However, there is another side to IT, concerning how it can actually prevent organisations from progressing. In many organisations, IT is a bottleneck: it reinforces clunky processes, complicates interpersonal communications and restricts business activities. IT and business activity can be misaligned to such an extent that organisations are forced into bankruptcy. This leads to the question, if IT isn't actually helping the business, what the heck is it there for?

Where we fundamentally agree with Carr is that IT shouldn't matter quite so much, in the first instance – given the promise of technology, the fact that it is a bottleneck is a travesty. Many organisations would be delighted if IT became no more than an efficiently run, commoditised platform, since it would be a vast improvement over the hotchpotch of inefficient, legacy technologies they are forced to put up with. And even relatively young companies can quickly find themselves hampered by past technology investments.

Ironically, commoditisation can make things worse, since the same underlying trends that render the strategic business value of core technology marginal illustrate even more starkly the weaknesses in how technology is deployed. Like castles built on sand, new technologies are layered on top of the rather shaky foundation of the old, increasing complexity in the hope that old problems will be resolved, or perhaps concealed by the new. Although the 'what' of IT might be a commodity, the 'how' of IT – and specifically 'how' it is employed in the support of business initiatives and functions – absolutely does matter. As the utilisation of technology within organisations becomes more and more complicated, the focus needs to move away from the 'what' and towards the 'how'.

This is as true for public organisations as it is for private companies. Public bodies differentiate themselves on the basis of the services they deliver to their constituencies: should they fail, they can be reorganised into oblivion. More and more public agencies must

operate in the same way as commercial businesses: indeed, there are a number of examples in this book of how it is in their best interests to look for commercial opportunities. But first, of course, they need to get on top of their costs and use IT to support the existing services, without which commercial potential is no more than that, potential.

We need to treat the ecosystem

The killer is that although individual technologies might not matter, business value is both realised through and constrained by the orchestrated operation of the whole ecosystems of technologies and service providers. The goal of this book, therefore, is twofold. First, it sets out to help you reduce the waste, minimise the problems and achieve a state of improved business alignment – that is, where your IT capability matches up with your business needs. In other words, it shifts IT from being a bottleneck to being a foundation, as shown in the first two steps of Figure 1.1.

Having done this, it is then possible to determine how IT can make a real difference to the business (the final step in Fig. 1.1), above and beyond the competition – IT as a differentiator. We're not looking to turn everyone into Google. Rather, we believe that organisations have the opportunity to improve above and beyond what is considered the norm. Only once you have escaped from the primeval swamp of legacy IT, are you in a position to use it to your advantage – and in this, you have as much chance of success as anybody else.

Our research – both gained as a result of a collective 80 years in the IT industry and specifically conducted for this book – strongly suggests that the knowledge, tactics and strategies that comprise the 'how' are far from commodities. There are pockets of best practices, but there are vast expanses of corporate space where the relationships between
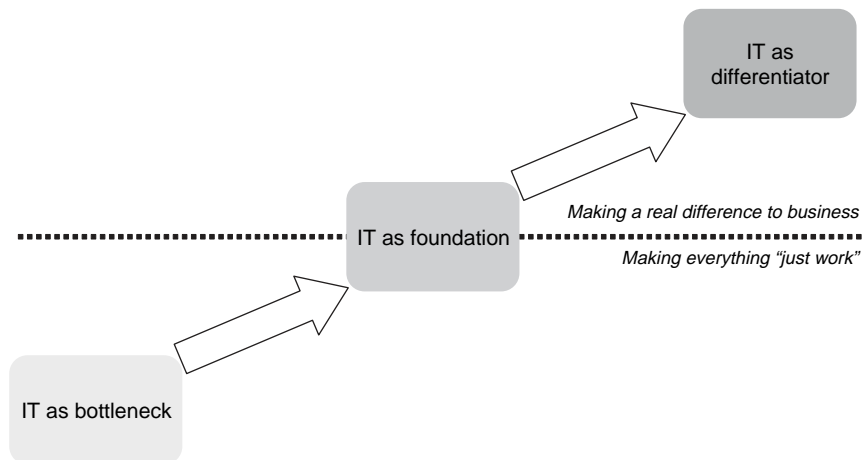

Figure 1.1: IT transformation

IT investments and their business environments are highly dysfunctional. Often, this is as much a result of business organisation dysfunction as IT dysfunction: to succeed, both must be treated at once.

Entering the technology garden

There's something about a garden. Stand in the middle of one and it will tell you a story, about its purpose and intentions, its current state and perhaps most importantly, who looks after it. One thing that will be immediately apparent – so obvious; in fact, it almost goes without saying – is that it will be different from one day to the next.

A garden is not fixed in time. There are too many influences, too many factors – from the weather to invasions of parasites – that can change and impact its state. Not only are its individual components in a constant state of growth – or, indeed, death – but each component can also impact everything else, so a leafy tree in summer prevents things from growing beneath it, or a climbing plant, left unkempt, quickly overcomes its neighbours. Also, seasonal effects stimulate their own cycles of new growth, as plants, trees and shrubs blossom, cross-pollinate and go back into wintry hibernation. Every day, sun and rain cause change – living in Britain we are only too aware how unpredictable the weather can be and the unexpected effects it can have.

We know all of this to such an extent, in fact, that we accept it without question and deal with the consequences: prune before the spring; don't plant in the shade; keep on top of the weeds. Everything from soil to sap is dealt with as part of the whole, as all must function together.

Technology components are not plants: we have not yet invented self-building robots or self-modifying code. However, it is the gardening state of mind that is so lacking in today's IT organisations. As mentioned in the preface, there is a tendency to persist with the idea that technology, once implemented, should just work – even though we know it is a false premise. Instead, there is an urgent need to adopt a very different model for how IT capabilities are defined, deployed and managed.

In this book, we focus a great deal on the idea of 'services'. To explain what these are, consider how many times you have heard someone exclaim, 'I don't know why they make these mobile phones so complicated, all I want to do is make phone calls!' While a phone may be technologically complex, that is no excuse to lose sight of its primary purpose – to enable voice calls. That is the difference between technology and service.

While technology components may be fixed, services most certainly are not. They, like plants, are dependent on context, can grow and diminish in importance as the 'seasons' of a business change from investment, to growth or consolidation. Services can restrict each

other's capabilities. And, like plants, services have a lifecycle. They are created, developed, maintained, and ultimately, they die, but the garden as a whole is sustainable, if it is tended correctly.

Above all, that is where the 'garden' paradigm makes the most sense. In our research for this book, we have learned a great deal about how organisations successfully achieve and sustain alignment between IT and the business. If sustainability is the goal, it is services that must be cultivated, whatever the underlying technology foundation.

So, look around your organisation. Do you consider your IT capabilities in terms of services? Do you understand their purpose and their current state and what is expected of them? Most of all, what do they tell you about who looks after them? If all you see is an overgrown mess, all is not lost – even the most chaotic gardens can be rescued from chaos and returned to their former glory, or indeed, made comparable to the best.

The technology garden provides organisations large and small with the opportunity to get on top of IT and to make it work for them. As we are naturally inclined to be positive about the potential of IT, we see the portfolios of existing and potential investments that crowd every corner of today's organisations, as plots of unworked land. A lot of people would rather not think too hard about the bacteria, worms and the organisms that populate those plots (Answer: hundreds of bacteria and up to a million fungi in every gram, as well as hundreds of worms, millipedes and other bugs!). To us, every organisation's IT environment is a hectare of uneven soil. But soil is an amazing thing. If appropriately planted, and with the right amount of water and sunlight and attention, amazing things can happen.

Aligning IT and the business

What does it mean to 'align IT and business'? What does it mean to 'add value to business' through IT? Indeed, what kind of 'value' are we talking about?

In practice, today there are three key focuses where businesses look to IT to deliver value:

- Improving operational business efficiency and effectiveness
- Managing risk and compliance
- Supporting innovation.

All these focuses actually place different emphases on 'value creation', but they all bring the same challenges – not least the need to effectively balance investment for the right mix of short-term and long-term paybacks. In reality, a business wants to drive towards all three of these things, and IT needs to be able to support all three in ways that fit with the mission in hand.

It's difficult to define an idea as broad as IT–business alignment succinctly, but a working definition should go something like this:

> IT-business alignment is a collaborative process that businesspeople and IT organisations go through to create an environment in which investment in IT and delivery of IT services reflect business priorities, whether IT services are sourced internally or externally; and in which business priorities are influenced by understanding of IT capabilities and limitations.

Aspects of IT–business alignment

The definition used above aims to highlight that there are three core aspects to IT–business alignment that must all be considered if things are to improve. The three aspects are three high-level phases of an overall IT lifecycle: investment, service delivery and change management.

Figure 1.2 shows these three aspects. First, let's look at the importance of considering IT investment. This reflects the fact that IT is now integral to the way that businesses operate. Historically, IT has been viewed by the business as somewhat of a 'black art', best left to IT practitioners, with the result that investment in IT has been treated as a special case. With IT now playing such a critical role, this position is no longer tenable. Investment in IT must be subject to the same priorities which govern investment in other assets – people, facilities, production lines, among others – on which the continued operation of the business depends.
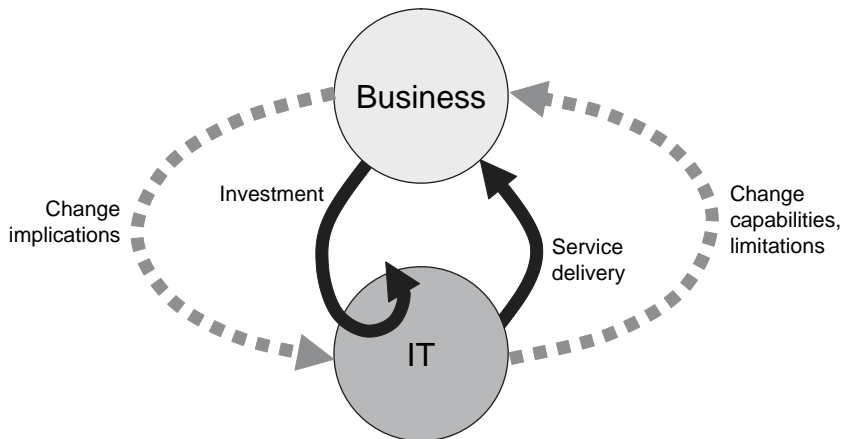
Figure 1.2: The elements of IT–business alignment

Second is the delivery aspect. This is a direct consequence of the first aspect. It highlights that the way in which the IT delivery organisation provides services to the business must be governed by the same business priorities. This extends to encompass the way that IT service delivery is measured. Only then will it be possible for businesspeople to assess the business return on their investment in IT.

Finally, with IT now so integral to the way that business operates, it is no longer feasible for business decisions to be taken without a clear understanding of the IT implications of those decisions. Business leaders and the IT delivery organisation must participate as peers in the business change management process and adopt a systematic approach to assessing the IT implications of any change. Such collaboration puts the IT organisation in a position where it can actually influence business change by highlighting the challenges and opportunities arising from technology change.

The principles of IT-business alignment

In our research, interviews and discussions, a number of core principles have emerged that are critical to bringing IT and business closer together. Before we list them, here's a serious caveat: to really make the most of IT in business, it's important to realise that both have to bend. Like two people locked in a small box, for an IT organisation and its business 'customer' to get comfortable, they both have to coordinate their actions so that neither gets an eye gouged or a foot stuck in an awkward place. Business and IT are intimately intertwined.

Either you decide to embrace the role of IT in business or you decide to ignore the possibilities and accept current state of compromise. If you're prepared to step up to the plate and take advantage of the benefits that modern IT and IT practices can bring to your organisation, you will have to be prepared for some discomfort. Recognise, however, that doing nothing and consigning your organisation to mediocrity is still a decision – unless, of course, you are already doing everything right – in which case we shall come to see you personally to present the champagne.

For the vast majority of organisations that wish to align their IT closer with the business, we believe there are a number of principles which, applied in the right way, will offer significant benefits over just sitting on hands and hoping some bright spark will take the problem away. We've condensed the findings of our research into six principles, and the later chapters will look at each one in more detail. These are as follows:

- The IT organisation must get the basics right: without the fundamentals of sound IT service delivery, it will be impossible to build the appropriate level of trust with the business.

- Create a common language: a shared understanding of goals, strategies, activities, metrics and change implications is a crucial foundation for the delivery of effective IT

capabilities. A common language is essential for the establishment and maintenance of that shared understanding.

- Establish a peer relationship between business and IT: there needs to be real sharing of authority and responsibility when it comes to making and implementing decisions that have implications for business and IT.

- Work towards coordinated goals and objectives: a common language is not enough if ever-broadening communities of IT stakeholders are to be led in a way that promotes agreement on what's important and what isn't. IT–business alignment needs a culture that promotes working together in a coordinated way to meet shared goals and objectives.

- Manage IT as a business-driven portfolio: effective management of IT investments requires a big-picture view that does not just consider work that is planned or in progress, but also fully encompasses past investments to ensure a net overall contribution of value to the business from IT spending. This view needs to balance risks, costs and returns across the business as a whole.

- Foster relationships with key IT suppliers: effective supplier management is essential, because suppliers provide IT capabilities and are potentially an invaluable source of skills, resources and insights to help optimise the delivery and support of services to the business. More than that, though, a lack of supplier management can lead to higher costs, unnecessary risks and failure to maximise return on IT investments.

While these principles can be applied in isolation, there are many synergies and dependencies between them. If the IT organisation cannot establish business trust by getting the basics right, for example, then it becomes very difficult for IT to establish a peer relationship with the business. Similarly, coordinated goals and objectives can only be worked towards if there is a common language between business and IT.

A word about Enterprise Architecture

On a specific point, given that the central theme of this book is the alignment of IT activities with the business, and that this alignment must take place at all levels, it is worthwhile emphasising a thread that runs throughout our discussion that provides an important frame of reference.

You will find us using the term 'Enterprise Architecture' (EA) quite frequently, which is relatively common in IT industry parlance but can mean different things to different people. In the context of this book, we use EA to refer to that all-important framework for IT–business alignment.

At the highest level, EA is based on a mapping of organisational, process and IT structures and dependencies, and how these may need to change in the future to achieve business

goals and objectives. We'll be discussing different perspectives on EA in context as we explore the various aspects of alignment activity, and particularly how the concept may be applied incrementally without running into 'analysis paralysis' and other problems which so often plague enterprise mapping and modelling exercises that attempt to 'boil the ocean'. So look out for references to EA as we go, as it is a crucial element in the overall equation.

Finding your way around this book

What does this book contain?

The book consists of four sections: a summary of where we are today and how we got here, the principles themselves, their application in a real-world environment and scorecards, as follows.

The current realities of business and IT

This section contains a brief overview of the history of IT and how things stand now: a complex interwoven network of business and IT challenges. The central question it poses is, given the 50 years of innovation we have seen, why is IT still not delivering business value? It then sets out the imperatives on IT–business alignment, defining what needs to be done to solve such challenges and to provide a firm foundation for future growth.

The principles

These sections describe the principles themselves. Each of the principles follows the same format:

- Common areas of misalignment: documents the issues faced by organisations today, to illustrate the need for the principle.

- Alignment imperatives: briefly defines where organisations need to get to and what that would look like.

- Achieving alignment: describes the core transformational advice and guidance and highlights the key actions to achieve alignment.

- Maintaining alignment: explains how to sustain alignment and prevent things drifting out of alignment over time.

- Summary: summarises the key challenges and actions.

For each principle, we explain the different stakeholders involved, their roles and their expectations. We also provide practical examples to show how the principles have been