**Interview: Professor John Ward**

**Strategic Planning for Information Systems**

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<th>This is a Cranfield School of Management podcast. This is one of a series where we interview faculty about their books and the key issues that come out of those. Today I am interviewing John Ward about his book that he co-authored with Joe Peppard on <em>Strategic Planning for Information Systems</em>. Now, let’s start off John with how is the book divided up?</th>
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| JW | Well the book is really in three parts: the first half addresses the issue of driving IT investment from the business strategy, rather than, if you like, from what IT can do, but it also involves how you balance the capabilities of IT with what the business is trying to achieve. So the first half is about identifying why you want to do things, what you want to do, making decisions about priorities, assessing the value you will get out of different types of IT investments in terms of your business. 

In the middle there is a chapter, and we will come back to that, about portfolio management which is making decisions then across the whole range of things about how best to manage them because they are different. People tend to look at IT projects as being similar – they are not. It depends on the value that you are trying to get out of it, the contribution you want, whether you manage it in a certain way.

Following that, the third part of the book is to say, if you are going to manage all of these things you need to do it in a consistent, strategic, long term view – including things like architecture and infrastructure investments, capabilities. How do you make sure that you are able to deliver the strategy that you want and to be able to sustain that over time? It’s easy to do quick planning, quick implementation, but this is saying we want to be good at this forever. So it’s really those three parts to it. |
| SM | I would like to just take a personal view from you about what you see is the state of play of IT systems and strategies today. |
| JW | Can I just put it in an historical context – I have actually been in this business now for, I think, 40 years and you see these waves of technology driven investment, followed by businesses saying hang on a minute it’s not delivering. When I started it was technology can do everything. It didn’t. So then we backed off, we thought what does the business want? Let’s use the technologies and work out how best to use them.

Then you get another innovation in technology, such as the internet, and everybody goes mad on e-commerce again and technology is
the answer. People waste millions. And it’s trying to get the balance between what technology can do, but where the business wants to go and how technology helps you get there.

I see at the moment, again, maybe with the recession coming things will get tougher, but what you have seen over the last few years is technology push and technology people becoming, I would say, more divorced from the business than they were in the past. So the integration between the business strategy and the IT strategy is perhaps weaker now than it has been at times in the past. I think when you get into more difficult times that people question these investments more and it should become more driven by the business again to say let’s only spend the money on things that are really going to help us do what we want to do. So, you see waves and over time it changes. So I have been around long enough to see it change a few times.

SM That’s right. We are now in a situation where the importance of business driven IT strategy is vital.

JW Yes, I think it always has been. If you have seen the good times, when you have got a lot of money and you have got a lot of money to spend, you can make mistakes with investments: you will get some good ones, you will get some bad ones and on balance probably you will be better off than you were. That has been the last few years – didn’t matter if we wasted a bit of money. I think it does again now, it matters more.

It always matters that a business drives the IT strategy, but in more difficult times you have got less money to spend on this, you can’t afford to get it wrong, so you really have got to make good business based decisions about where to spend money on IT. So it gets more intense.

SM Let’s get down to specifics then – how do you actually do that?

JW The first thing is there are two steps that are crucial at the start of all this because you do need to put into the considerations of your future business strategy what technology capabilities are around. You also need to make a decision on are we going to be adventurous with technology – risk it, take new technologies, try them out – or are we really going to only use proved and tried and tested technology? A strategic perspective on how does technology work for us.

Now some organisations will be adventurous. We work with a number of pharmaceutical companies – they are used to R&D, they are used to risk, they will take risks with technology. Others, perhaps retailers and so on, know it’s all about margin: the technology has got to work and it’s got to work well, so they tend not to go into high risk technologies. So that is the first thing – the
strategic positioning on technology. And then actually introducing into the consideration of your business strategy what capabilities could the technology help you have, but also of course then, what does the business want to do and which capabilities rely on the technology to do that. So which aspects of your business strategy can’t be done unless you improve the information technology and systems and processes that you use in the business? So it’s an iterative process.

It’s also what I would call conversational. It’s not that IT presents to the board what technology can do; the board presents to IT here is a strategy – it has to be interactive and work it out as you go. But in the end the business strategy should contain aspects of IT that are integral to its achievement.

There will also be parts of it which are non strategic, in which we can just improve efficiency through the use of IT and I don’t see that has to be integrated, it just has to be ‘life’. If it’s cheaper to automate this, we will automate it.

SM

One of the things that was a real eye opener for me when I first heard about this concept was the idea of the application portfolio. Can you describe that for me, because I think that in many ways is very much the business driven end of IT in practice?

JW

Yes – portfolio management in any organisation is about different investments, it’s a crucial part of management decision making and setting priorities. In the end the most difficult thing in a strategy is to set priorities. The easiest part of priority setting is to decide what to do; the most difficult thing to do is decide what you are not going to do. And the idea of the application portfolio is to help you make those decisions, based on a set of criteria about the contribution you want from that investment.

As I said just now, some investments are merely about efficiency. You can get those benefits whenever you like – if we wait another year, we will get the benefits then. And you can do very detailed analysis to work out how the efficiency gains will occur. It’s not strategically very important, but gives you cost savings and improvements.

Other systems and technology in place is absolutely key to the operation of the business. If it fails, say you go into a supermarket and the point of sales systems fails, the EPOS system fails, they can’t take your money. What if all the ATMs go down in a bank? Their customers are very unhappy and in almost every organisation there are key operational systems, which if they fail cause you major business problems. They have become the way you do business, so you have to identify which ones they are in a portfolio and ensure they are kept up to the state of performance of the business that you need. They cannot fall behind otherwise you are being
disadvantaged.

In any strategy there are two sorts of investments: one is to gain advantage and the other one is to avoid disadvantage. So these things, the efficiently run support systems avoid disadvantages, economic disadvantages; key operational systems – you have to ensure that they are not disadvantaging your business. And that is where you will spend most of your money because most people have got a lot of these – but making sure that you do enough, but not waste money. Then there are the strategic investments which are those things that our future business strategy is absolutely dependent on – this new investment in technology and systems and processes to make it work.

It may be that the technology creates the opportunity, but more often it’s that the opportunity can’t be realised without using new technology or innovations or extending the technology. These are a few strategic investments – you can’t do too many, or you can’t cope. So you want to pick a few which make the biggest difference to your organisation. Again, the benefits of these will be partly financial performance, but partly achieving something – a new capability that will last you a long time.

The final quadrant on the two by two matrix – I work at a management school, what do you expect? – is what we call the high potential area, which is R&D. Now if you are going to use new technology, try it out first, prove that it will do what you want it to do. This involves either experimenting, evaluating with other companies or trying it on a pilot. So the ‘R&D box’ is where you take the risk out of the other things that you are trying to do. And a lot of organisations don’t do that. If people back in the boom times of e-commerce in 2000 had done some of that they wouldn’t have wasted the billions that they did on things that wouldn’t work.

So that is the portfolio. It’s very, very widely used in that form or an adapted form by many organisations. The key to it is the business managers make the decisions on where these things are in the portfolio, based on what they want to get out of it. And depending on the nature of where it fits you will manage it in a different way. That is the key to it and it works for a lot of people.

SM

That is good news. If we look beyond the stage of making key decisions about keeping an IS strategy living, breathing, alive, very closely aligned with the business – how do we ensure that that happens?

JW

I think there are two or three ways to ensure it happens. One is that this portfolio is maintained and updated and driven by the business, and obviously as things are completed you review success or failure and you learn from that and again. Organisations who use it drive it from there. If the business strategy changes, for instance, then you look at the portfolio and say are these
investments still the priorities or not.

If the supply side fails you – that you don’t deliver what you expect – it’s what the implications are for the other things we are doing. You need some form of steering group or governance board to overlook the strategy and actually identify when it needs to change. Much of the activity, of course, is delegated. Those strategic investments in the portfolio should actually be brought to the attention of this governing group frequently.

The other thing is to look at your competencies. One of the parts of the book is about competence assessment. A model we built enables an organisation to say what are we actually good at and what are we not so good at that is affecting our ability to deliver what we want or identify what we want.

So the other thing is to monitor those levels of capability or competence that the organisation has and any areas of weakness. First of all obviously try and improve it, but if you have got an area of weakness, it’s to say let’s not expose ourselves to that weakness until we have improved. So if particular areas of implementation of projects are a problem, and many organisations don’t have enough project management skills to do the number of projects they are doing. OK let’s make sure that we do deploy the experienced project managers on the projects that matter most so the capability is well used. I do know a number of organisations where it is pretty random, frankly. Again, if you use the portfolio, the style of project management varies across the segments of the portfolio – it’s all pretty well known stuff that we have brought in from business strategy. The book basically is a business strategy approach to IT.

**SM**

The book has been out now for some while, it’s gone into its third edition now. Can you describe some of the changes both that you have seen and the success stories?

**JW**

The first edition came out in 1990 and I have to say that there were two books on IT or IS strategy out almost at the same time. Our book was much more balanced between the academic view and a practitioner view. What I have seen in terms of the way the book has changed is that frankly at the front end the techniques are identifying opportunities, so haven’t really changed over time. I think the ways of thinking about things, maybe some more innovation type activities – how to create innovation as opposed to just doing things you know how to do.

One of the things that we tried to do with the book is update it every six or seven years to allow for the new technologies and the implications of that in the way that you will then develop or manage your strategy. What we have seen is that it has come more and more out of the IT department or function, to be much more the responsibility of business managers to make decisions. However, at the same time we have found that in many organisations the IT is
much more outsourced than it was. So the gaps, if you like, that you have to address in order to make this work, have probably become more difficult. So having a process, having governance structure, having ways of doing it, I think has become more important over the last 18 years that the book has been out.

We have tended to concentrate on developing the back end of the book. The front end stayed pretty consistent, a few new ideas and so on. The back end about managing strategically – managing the IT capability and the resource strategically – has moved on an awful lot in that 18 years and people are doing things in quite different ways. What I do believe is true is that although technology moves on a pace, the issues in managing IT are pretty constant. Obviously the technical skills you require, all that changes, the management issues that you see today, a few new ones, most of them are pretty eternal and that is why I think the book still has relevance. It’s up to date in terms of technology, up to date in terms of business strategy, but actually the issues underlying it have been the same really over time. Which is what you would probably expect.

SM

Thank you John for giving some good insights into the total strategic process and hopefully over this 18 year period, in the next 18 years hopefully we will see more of these ideas put into practice.

JW

The book is a huge tome, in the academic circles people refer to it as ‘the bible’ – sorry if that causes any offence, but it is a text book which sells extraordinarily well around the world and therefore it has got things for everybody and I think that is what we have tried to do and hopefully succeeded. Those people who want to take an academic view and a real understanding of why these things are the way they are, but it is also very practical with the techniques and approaches that we have seen organisations adopt and they largely work well for them. So we hope that we can combine the academic and the practical again in the future.

SM

Thank you.