CONFERENCE REPORT

Management Challenges in Information Systems

JOE PEPPARD

Cranfield School of Management, Cranfield University, UK

The Management Challenges in Information Systems conference was an attempt to initiate an annual high quality UK information systems academic conference and forum. Instead of the usual 'call for papers' which generally results in a diverse range of papers, the governing body decided to focus on three themes which are currently particularly pertinent for IS practitioners and academics alike.

Not surprisingly the current 'hot topic' of business re-engineering (BR) was chosen, together with the IT/business culture gap and outsourcing. Convenors for each of the three themes (George Rzevski, Catherine Griffiths and Leslie Willcocks) invited three papers, each dealing with a different aspect or taking a different perspective of the theme. A crucial design feature would be that ample time would be set aside for debate, not only of the presented papers but also of a more general nature in relation to the themes.

Business re-engineering

George Rzevski of the Open University opened the proceedings and presented a paper focusing on how he saw business re-engineering fitting into current trends: individual-collective, centralized-decentralized, vertically integrated companies-distributed businesses and global partnerships and functional-process based. Using art as an analogy, he contrasted modernism and post-modernism arguing that BR is a new form of expression containing new elements but mixed with aspects of other 'eras'.

Mathew Jones of the University of Cambridge followed with a paper dealing with what he saw as being the contradictions of BR. Despite the voluminous amount written on the subject, there is little or no critical analysis and this paper was an attempt to address this deficiency. Those who have been engaged in re-engineering projects or who have been following the BR debate will instantly recognize the contradictions which he sees as being inherent in what is being currently written about business re-engineering: new versus established, radical

versus incremental, IT-led versus process-led, universal versus specific, inspiration versus engineering, top-down versus bottom-up and rewards versus risk.

Of particular interest is his view of how one might deal with these contradictions and he outlined three strategies which are often used: denial, resolution and accommodation.

The strategy of denial does not recognize that contradictions exist and that any apparent contradiction is due to misinterpretation and misunderstanding. The second strategy is to demonstrate that the apparent contradictory elements are actually compatible or by drowning them in rhetoric. The final strategy is to accept that there are contradictions and he draws on dialectic theories to illustrate the contradiction which is inherent in the nature of being.

He concluded by suggesting that BR may endure through because of its contradictions rather than despite them. The contradictions evident in re-engineering may thus reflect general tensions inherent in modern organizations and are therefore all the more deserving of our attention.

In the final paper in this track, Keith Grint of Oxford University developed a sociological perspective of business re-engineering. He began by setting out the elements of re-engineering as expounded by Hammer and Champy (1993) and subjected each to a brief historically based critique that disputes its novelty. He then went on to consider why business re-engineering might still be regarded as novel and why the historical antecedents of BR might be useful in accounting for its apparently limited success rate. In particular, he suggested that re-engineering is likely to fail where it is construed as a method and a goal of change that is premised upon rational analysis, where the decision making is incremental, where the methods of execution depend wholly upon assumptions about rational individuals and where its legitimizing characteristics are regarded as self-evident and lie in its internal and objective value. He also argued that for re-engineering to work as a radical and long-term change the focus should be more about re-engineering the way managers think 128 Conference report

and work as about re-engineering the way processes operate.

While IS researchers have drawn on social theory in their research (cf. structuration theory, critical theory, phenomenology, hermeneutics, etc.), Grint's paper is one of the first to do so in a rigorous attempt for a deeper analysis and understanding of BR and it has much to applaud. In its present state, BR lacks a well-grounded theoretical foundation and is an area where much research is needed.

Not surprisingly, delegates had much to say on the subject ranging from scepticism to unbridled enthusiasm. One profound remark (referring to the title of Hammer's (1990) paper) was that organizations cannot obliterate and obliterate and obliterate ad infinitum! This of course must beg the question of what is coming after BR? A number of delegates commented on the rhetoric of re-engineering versus the reality of re-engineering initiatives. There is much to merit in the observation that the language of BR is revolutionary whereas in fact the reality of BR is very different. BR in many instances is only manipulating language. The comment was made that in the 1960s revolution was a dirty word, associated with communism, yet in the 1990s revolution is politically correct and BR is the business world jumping on this bandwagon.

An interesting perspective on this explosive interest in BR is that incremental improvement is bottom-up, yet the culture the USA and UK cannot adapt to this. In this respect, BR is seen as an attempt by management to regain control of their companies.

The failure rate of re-engineering projects was also addressed. There was a suggestion that you can't design organizations to deal with threats when you don't know what those threats are: BR failure is therefore often due to the generation of the wrong option.

If there was one element of agreement, it was that at the end of the day BR is about implementation. A number of delegates noted that in many instances rigid organizational structures reside in the minds of people. Perhaps a social constructionist perspective might provide a more balanced and humanistic view. With such a view, re-engineering is seen to involve the reconstruction of 'meaningful' processes, rather than simply the design of technical ones.

Managing the IT/business culture gap

The gap between IT professionals and the rest of the business was perhaps first highlighted during the 1980s and led subsequently to the work on hybrid managers. In many ways there was an initial expectation that both camps would eventually merge. This has proved not to be the case and the problem is deeper than merely giving

managers IT skills. Cultural differences are increasingly being used to interpret this gap. Yet in her introduction to this theme Catherine Griffiths paraphrased Mary Douglas, suggesting that culture is often used when other explanations fail.

In their paper, John Ward and Joe Peppard noted that despite the criticality of IT to the business, little attempt has been made to explore this gap further with much of the writings and limited research on the subject dispersed, progressing little beyond the centralizationdecentralization debate and offering little by way of guidance. What literature there is concerns itself with issues of control of resources rather than managing the relationship. Indeed, they noted that through outsourcing, many organizations have chosen to rid themselves of the problem, yet recent debate has raised the question of the long-term consequences of short-term decisions which are very often based on a historical problem. They suggested that very often the 'trouble' has no foundation beyond a level of perception. They then introduced the cultural web as a framework for understanding the cultural differences between the two camps. Using the metaphor of a marriage guidance councillor, they suggested that the business and the IT organization subscribe to two different paradigms, each creating a relatively homogeneous approach to the interpretation of the complexity that an organization faces. Since these evolve through time and are reinforced by history, they provide a repertoire of actions and responses to the interpretations of signals, which are experienced by members of each camp and seen by them as demonstrably relevant. They presented a case of how they have used the web in their work. In conclusion they contended that because of the culture gap and the opportunity to outsource IT, more and more companies are choosing divorce rather than reconciliation which will make the organization incompetent in the future.

Sometimes technology itself is blamed for the gap. The rapid advance of technology demands that organizations keep abreast of the latest developments and identify the potential opportunities which it may offer. The IT organization seeks technological excellence while the business seeks excellence in business. It was in this regard that Bill O'Riordan, Head of Research at ICL and professor at Imperial College London, presented a technical perspective of the culture gap. He presented his vision of the future, which he described in terms of paradigm shifts. Some of his assertions, backed up by logical arguments, make interesting reading: hardware is going to get very expensive and control will remain in the hands of a few dominant players, neural computing will not deliver its dream and the Internet will significantly change how we will work. He also raised an important distinction between training and education, stressing the importance of society being able to learn.

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The final speaker in this stream, Tom Kass, Vice-president of Volvo, gave a practitioner's view of the culture gap. He spoke about the practical implications and demands of being an IT professional and that of a user. He derived much of his inspiration from Fred Brooks's *Mythical Man-Month*, which although written over 20 years ago is still relevant today. He ended with the assertion that it's management's job to manage culture.

Not surprisingly, the discussion on the culture gap was heated. There was a suggestion that perhaps the gap begins at an educational level with a distinction between computer science departments (which produce most of the IT professionals) and business schools (where managers come from). There was also an argument that IT professionals are 'emotionally incomplete' and a radical proposal that the computer science degree was perhaps the root of the problem and needed to be abolished.

There was a suggestion that the critical challenge is about integrating subcultures and not bridging the culture gap. Of course the question is whether or not you can re-engineer an organization's culture? O'Riordan began his presentation by stating that ICL is successful because it has re-engineered its culture. This seems to return to one of the final points made in relation to business re-engineering and that it is about re-engineering mindsets!

IT outsourcing, alliances and governance

The convenor of this final theme, Leslie Willcocks began by outlining the current situation relating to IT outsourcing and presenting some UK market forecasts, with comparative figures for France, Germany and mainland Europe. He then fuelled the outsourcing debate, presenting arguments which are often used for outsourcing and the corresponding questioning of this wisdom.

In the first paper, Vaughan Mitchell and Guy Fitzgerald presented the results of their recently conducted survey of outsourcing. The research concentrated on the role of the vendor in the outsourcing process; however, both supply-side and demand-side participants were included in the survey. They began by placing outsourcing in a historical context, beginning with bureau services in the early 1960s, which enables them to present a classification of outsourcing vendors.

Having presented an excellent analysis of the market dynamics they concluded that it is a seller's market, i.e. the balance of the market is in favour of the vendors. They then went on to analyse trends in the outsourcing industry, proposing that increasing competition and the lack of market entry barriers will drive the need for vendors to segment the market and target and position themselves within specific market segments.

Their presentation then explored vendor-client relationships, including vendor selection criteria (choosing who they want to do business with) and specific differentiating core competencies which act as order winners for clients.

On the demand side, perhaps, the finding that outsourcing of IT is a dynamic process provides food for thought for both the pro- and anti-outsourcing lobbies. Against general predictions of a rising trend in outsourcing, nearly one-third of the organizations who have outsourced have in the past 5 years cancelled contracts as opposed to straightforwardly renewing them. In one-half of these cases the contract was subsequently renegotiated, but a further 28% of the cases involved a change of vendor, while the remaining 22% saw the IT work brought back in-house.

Their data revealed that half of the organizations that outsourced IT had experienced disputes with their vendor(s). When asked what they would do differently, most responded by referring explicitly to tightening service contracts, more detailed measurement and making clearer what was covered by the contract.

The paper also examined vendor selection criteria. One which warrants particular mention, given the previous theme, is the requirement of a cultural fit between the client and the vendor. Interestingly, price was not important in the context of vendor selection, despite the fact that in many cases one of the driving forces for outsourcing is cost reductions.

Beginning with a brief 'lecture' on metaphors (IT as a competitive weapon, IT as a commodity, IT as a utility, IT like a fruit stall, etc.), Mary Lacity presented some of the work which she and colleagues at the University of Huston and Templeton College, Oxford have been undertaking. This research was based on a detailed evaluation of outsourcing decisions in 20 US companies. Her presentation outlined the practices adopted by these companies, the result of which often led to accepting bids from within the company itself (i.e. insourcing). She concluded by looking at the cost–service trade-offs prior to and after outsourcing.

In the final paper, Chong Ju Choi and Leslie Willcocks collaborated to explore similarities between the strategy of strategic alliances and outsourcing IT services (Choi is a strategy professor). They began by highlighting dimensions of cooperation taken from the strategic management and organizational behaviour literature, suggesting that Porter's 'Anglo-Saxon' model of competition is either outmoded or, at best, one sided and that cooperating/collaborating to compete has become a fundamental, not a marginal way forward in many economic sectors. They revealed the limitations of transaction cost theory as applied to the nature of interorganizational relationships which they are expousing. The reasons for and contingencies of relationship formation were examined,

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light thrown on the organizational behaviour aspects of cooperation (motivation theory, sense-making theory) and cultural aspects of cooperation.

They then went on to examine the model of 'strategic partnership' suggested by Henderson (1990), which details the determinants of successful IS partnerships, questioning many of its assumptions based on more recent research. They suggest that a revised model for 'strategic partnerships' would be needed to make sense of why such IT outsourcing partnerships form, how they evolve and whether the participants experience success or failure.

They concluded by exploring three cases: British Home Stores and CSC, BP Exploration and multiple alliances and NV Philips and BSO-Origin. They outlined the reasons for the outsourcing decision: business pressures and cost control/reduction.

In their analysis they stressed the importance of the mutual dependence element and the critical importance of strategic alliances, particularly in full outsourcing. They suggested that what often compromises such partnership arrangements in practice is asymmetrical resources, dependence and power relations developing over time in favour of the vendor.

There was unanimous agreement among delegates of the fundamental difference between IT outsourcing and outsourcing other activities. Firstly, it is difficult to specify future requirements and, second, switching costs are expensive. Indeed, the underlying contradiction inherent in the outsourcing debate was highlighted by a number of delegates: companies are mortgaging their futures while, for some, there may be the need to outsource in order to survive.

There was a clear message that companies should read contracts very carefully and in fact a pointed suggestion that vendors' standard contracts should not be signed. It was also suggested that more research is needed into the organizational and managerial roles which must be defined after outsourcing, particularly 100% outsourcing: informed buyer role, vendor exploitation role and managing contract role.

Overall a very enjoyable and intellectually stimulating event. The debates were lively with most of the delegates contributing to the discussions. Plans are already under way for next year's event which will be held under the auspices of the newly formed UK Academy for Information Systems.

References

Hammer, M. (1990) Reengineering work: don't automate, obliterate. Harvard Business Review, July-August, 104-12.

Hammer, M. and Champy, J. (1993) Reengineering the Corporation: A Manifesto for Business Revolution (Nicholas Brealey, London).

Henderson, J. (1990) Plugging into strategic partnerships: the critical IS connection. *Sloan Management Review*, **Spring**, 7–18.



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