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Re-engineering is Dead; Long Live Re-engineering

M G MARTINSONS AND D L REVENAUGH

Business process re-engineering (BPR) has been associated with runaway costs and corporate downsizing. This and other negative connotations have created or strengthened suspicions about the organizational impacts of information technology (IT). This paper considers the fundamental ideas of BPR, with IT as an enabling agent, and examines their consistency with sound management practice. © 1997 Elsevier Science Ltd

Maris G Martinsons is an Associate Professor of Business and Management with the City University of Hong Kong and Research Director of the Pacific Rim Institute for Studies of Management (PRISM). Email: BMARIS@CITYU.EDU.HK

D Lance Revenaugh is an Assistant Professor with the American Graduate School of International Management (Thunderbird) at Glendale, Arizona, USA. He holds a Ph.D. from Arizona State University and was previously an Assistant Professor of Information Systems with the City University of Hong Kong.

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Business process re-engineering (BPR) is undoubtedly *the* management buzzword of the decade. A short while ago, invoking this term was also probably the best way to get a change programme or information technology (IT) initiative funded in many North American and Western European businesses. Few of the projects which were labelled as BPR involved genuine clean-slate re-engineering or radical process innovation. However, they did invariably require vast human and financial resources. Perhaps more importantly, most of these efforts produced plenty of pain and stress, and were eventually perceived to be failures.

After becoming a US$50 billion a year industry, BPR has received a lot of bad press. Many managers now even *avoid* using the term whenever and wherever possible. Partly because its emergence coincided with a world-wide recession, BPR is now commonly associated with two things: (1) inflated consultancy bills and (2) slash and burn corporate 'downsizing'. Negative connotations are implied for company balance sheets and project budgets as well as for middle managers and other employees surplus to the re-engineered process. This has in turn created or strengthened suspicions about the organizational impacts of IT, since IT is the enabling agent, and often the driver for BPR. Such a situation is most unfortunate, not only for the laid-off staff and those overstressed colleagues who remain employed, but also for the business world in general.

The fundamental ideas of BPR represent good management practice. Its popularity has also highlighted the importance of process innovation, which has commonly been an afterthought to product innovation. Re-engineering sought to do more than simply improve operational efficiency by reducing staff. The goal was to increase organizational effectiveness by using IT to radically change the way work was done. The leaders of many leading organizations that have a 'can do' culture will tell you that they have been practising some form of BPR for many years.

In many respects, re-engineering harks back to the socio-technical systems design methods which were first developed in the 1940s. Work

and methods were studied in detail in order to achieve an effective integration of technology with the social system. Material requirements planning (MRP), lean production techniques and electronic data interchange (EDI) were also certainly IT-enabled process innovations which became popular long before the term *re-engineering* came into vogue.

Michael Hammer's 1990 article in the *Harvard Business Review* undeniably put these ideas into sharper focus and gave them a highly-marketable nomenclature.[1] Indeed, the distinctive aspect of first-generation *re-engineering* was its rapid pace of implementation, which is now widely perceived to be *the* reason for its high failure rate. As noted by Martinsons[2] and others, Hammer's main contribution was to popularize a particular label for change (with a focus around process and technology), and to claim that the captains of industry could achieve great leaps in productivity by making radical changes to not only their business processes, but also to the entire organization.

Hammer's clean-slate approach fit the needs of many corporate executives who were asked to quickly deliver substantial bottom-line improvements. Large-scale companies with large-scale difficulties were receptive to large-scale change. BPR captured their imagination—and their consulting budgets. The IT industry also prospered as re-engineering became a justification for massive spending on hardware, software and associated services. IT was introduced so that employees could do *more* work, and to perform it effectively with less supervision than that commonly found in traditional command-and-control structures. This led to dramatic improvements in the minority of re-engineering cases which were successful.

Despite prescriptive advice to the contrary, BPR practice emphasized short-term results. Massive downsizings and reorganizations were followed by exhortations for the remaining employees to do more, quicker and better, with less. Davenport[3] points out that people have been treated 'as if they were just so many bits and bytes, interchangeable parts to be re-engineered'. As a result, many workers felt more like prisoners of war than valued members of the organization.

The high failure rate for BPR can also be attributed to poor change management. Often what started out as a good idea went astray and ended up as a poor implementation. Organizations without any traditions of participative management or shared learning were forcing change onto an existing dysfunctional culture. With the continual threat of budget cuts and downsizing, short-term self-preservation took precedence over long-term corporate interests. In many cases, demoralized workers and a proliferation of process modelling documentation stifled rather than encouraged creativity and dynamism.

Re-engineering lost its human face and became a throwback to the dark days of the industrial revolution. Even many of the efforts that achieved impressive short-term results left a crippled and demoralized organization that is at a long-term competitive disadvantage. Indeed, the longer-term benefits from downsizing and restructuring are quite limited, especially in light of the fear and anxiety that they have generated.

After witnessing so many BPR fiascos, managers are coming to reassess their approaches to IT-enabled organizational change. This has often led them to reconsider the productivity concept. Productivity may be thought of as the quotient of a numerator (value), divided by denominator (people and other resources). The first-generation BPR

[1]Hammer, M., Re-engineering work. Don't automate, obliterate. *Harvard Business Review*, 1990, **68**(4), 104–112.
[2]Martinsons, M. G., Radical process innovation using information technology: the theory, the practice and the future of re-engineering. *International Journal of Information Management*, 1995, **15**, 253–269.
[3]Davenport, T. H., The fad that forgot people. *Fast Company*, 1995, November, ≪http://www.fastcompany.com≫.