The next ERP - Organising for self-regulating social complexity

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Abstract

We are looking at the next generation of ERP (Enterprise resource planning) systems. The first generation of ERP systems integrated administrative processes and expert systems towards high performance management information systems. This has been a vast success for the last 20 years since the term ERP was coined in 1990. Pushing the success story and covering more and more areas of the organisation, the benefits, like in the continuous deployment of any success model, got marginalised over time. It is time for a next generation of ERP Systems and our research shows how advances in different fields enable the possibility to repeat the initial success of the first generation.

After a short review of the success story of ERP systems (I) we meet the greatest challenge of management information systems in organising, which is social complexity (II). Based on Noel Tichy’s TPC model we argue how the combination of a technological perspective, a political perspective and a cultural perspective provide access to meeting social complexity, conceptualised as the interplay of political and cultural perspectives. How can we design political and cultural processes to interplay with the technological perspective of the first generation of ERP systems? Operationalizing this initial idea points at the field of Business Process Balancing (III). Applying the Pareto principle in business process engineering indicates that the codification of 20% of business processes will cover 80% of business activities. Volume and criticality will serve as criteria to prioritise within business process engineering and enable Business Process Balancing.

Inevitably the combination of first two ideas relates to organisational cybernetics (IV). The basic ideas of management cybernetics like self-organisation, local autonomy, recursion or discretion, as cunningly combined in Stafford Beer’s Viable System Model (VSM) give a new boost to the ideal of the learning organisation. Self-observation and self-description lie at the very heart of the progressive interplay of organisational self-realisation and self-creation. Finally we account for the potential which results from linking the above ideas to recent insights in the emotional and cognitive aspects of gamification (V). This does not only refer to the energetic surplus of the psychological dimension of flow. Equally interesting if not more relevant is the provision of the possibility of a far larger range of real-time impact evaluation. Surely this improves management decision systems however in a cybernetic perspective the larger benefit results from the possibility for a genuinely inbuilt social design impact evaluation.

The next generation of ERP systems will elevate our understanding and management of organisations in a systemic way. It will allow organisational self-regulation and provide for a mindful way of management, where management is concerned with the real challenges machines cannot solve. It carefully puts the human being back into the centre of a now largely self-regulation organisation with gives room and frees resources for creativity and innovation.
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References


