Enterprise Systems Adoption: A Sociotechnical Perspective on the Role of Power and Improvisation

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ABSTRACT

Enterprise wide integrated systems (ES) have been extensively procured in large organizations but much research fails to develop sociotechnically informed approaches that facilitate their implementation within complex organizational environments. In this paper the authors take a critically informed sociotechnical approach to power and improvisation in ES implementation. A review and synthesis of the pertinent literature, has led to the development of an analytical framework. This framework has been used to explore these concepts through a longitudinal, ethnographic study of an ES within a UK university. The contribution of this paper is a combined ‘circuits of power-improvisation’ (CPI) framework which can facilitate a better understanding of ES implementation, sociotechnical theory and practice. Lessons learnt from the study may potentially be used to avoid some of the problems experienced due to the lack of recognition of the important role of power and improvisation in what may be misrepresented as planned strategic and deliberate organizational change.

KEYWORDS


INTRODUCTION

In the last two decades, increasingly complex forms of organization have developed in response to the pressures from globalisation, economic uncertainty and market instability. In addition, rapid technological developments, especially in information and communications technologies have provided opportunities for the adoption of new management practices, especially those based on principles of performance monitoring, reporting, accountability and control. This is particularly prominent in both the private and public sectors, where objectives focusing on efficiency, competitiveness, quality, and accountability have led to an emphasis on the development of new metrics underpinned by a culture of performance management, greater centralisation and hierarchical systems. In order to facilitate and reinforce these new management regimes, a deliberate strategy has often entailed the procurement, adoption and implementation of Enterprise Systems (ES). This is particularly evident in sectors such as Higher Education in the UK where, in the past, there have been more professional and collegial forms of organization, professional autonomy and localised decision making (Fowler and Gilfillan, 2003; Pollock and Cornford, 2004; Oliver and Romm, 2009; Wagner et al., 2010). The rise of managerialism, underpinned by ES technology, has given rise to a new form of technocracy that has begun to dominate the human and social aspects of work and knowledge based systems that
have been developed over many years in organizations. This raises new issues regarding maintaining an appropriate balance between human, social and technical aspects of work thus giving rise to the need for more informed sociotechnical approaches and methods to be adopted in ES implementations.

Emerging research (Wagner et al., 2010; Dong et al., 2009) would also appear to indicate that many organizations, although having ambitious Information Technology (IT) strategic plans in place, find large scale enterprise systems overwhelming during implementation and may adopt organizational actions which respond to unfolding events resulting in unexpected and unintended consequences of the implementation as it progresses. One such consequence may be the ability to engage in opportunistic re-organization strategies afforded by the assimilation of ‘new managerialism’ (Clarke and Newman 1997) within the organization and, with it, a culture of command and control that is often incongruent with existing management cultures and organizational structures (Deem, 2004; Deem and Brehoney, 2005). The effects of ES adoption and its relationship to the redistribution of power and the alteration of political structures may lead to new policies, strategic opportunities and threats within organizations. This is an area that appears to be under researched. However, ES, once adopted, can also act as a catalyst for organizational and work based improvisation, thereby creating new and unanticipated power relations, managerial roles and structures.

The aim of this paper is to contribute to sociotechnical theory, by examining IS improvisation practice using the lens of a power and improvisation model that explicitly recognises the concept of power and its role in IT enabled organizational change within the wider context of enterprise systems adoption and implementation. Unlike Orlikowski’s (1996) ‘open-ended’ highly configurable groupware IT, and Elbanna’s (2006) ‘successful’ manufacturing ERP implementation, the ES under consideration here is one implemented within a highly complex UK Higher Education (HE) organizational environment. Our critically informed and sociotechnical approach adopts the ‘circuits of power’ framework (Clegg, 1989; Silva, 2007) and relates this to an improvisational model of change to surface issues and actions that bring with them unintended consequences for organizations.

In the next section we discuss the theoretical concepts that underpin our work and examine the fundamental ideas around improvisation and power and how the two may be linked. The primary research involved a longitudinal case study of a UK HE institution which implemented an ES and this is presented in the third section. The case is then deconstructed and analysed by relating it to the improvisation and power concepts previously formulated. The final section presents the implications of this research for future ES adoption and implementation, and reflects on the utility of developing improved theoretical models of improvisation to surface issues of power and political relations in organizations. It is proposed that this will add to the body of sociotechnical theory and lead to a better understanding of improvisation enabling opportunities and actions to be taken that result in increased value for stakeholders who may be the potential users and benefactors of ES applications.

IMPROVISATION AND ENTERPRISE SYSTEMS

Both the research and practitioner literature concerning the implementation of enterprise wide systems (ES) in large organisations is replete with normative models, methods and guidelines providing prescriptions for implementation success. One area of research which appears to have relevance to the ES implementation debate but which has tended to be largely overlooked is the important role of organisational actors and improvisation during the process. This lack of formal recognition is rather paradoxical however, as it appears that no matter how highly structured and well managed the organisation is, or how experienced the project teams are in terms of IS/IT implementation, improvisation is often brought to bear in situations where rubrics, formally planned approaches and methods fail (Cibbora, 1996). Research on improvisation has received increased recognition within the contexts of organizational change (Ciborra, 1996; Moorman, 1998), punctuated sociotechnical change and information systems (Lyytinen and Newman, 2008), management (Mangham and Pye 1991; Weick, 1998), bricolage (Lanzarra, 1999), tailorbility (Morch and Mehandjiev, 2000) and
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