

Chapter 78

Enterprise Systems, Power and Improvisation: Equipping Universities for Mass Production?

David W. Wainwright

Northumbria University, UK

Teresa S. Waring

Northumbria University, UK

ABSTRACT

Enterprise systems (ES) have been extensively procured in large organizations but much research fails to develop sociotechnically informed approaches that facilitate their implementation whilst understanding the impact of integrated technology on professional working practices within complex organizational environments. This chapter takes a critically informed sociotechnical approach to power and improvisation in ES implementation. The contribution is a combined “circuits of power-improvisation” (CPI) framework which can facilitate a better understanding of ES implementation, sociotechnical theory, and practice. Practical lessons learned from the study may potentially be used to avoid some of the problems experienced with the over-zealous and rapid introduction of digital technologies into university organizations where the risk is that they become a student mass production system. It highlights the important role of power and improvisation, enabled and afforded by new digital technologies, in what may be misrepresented as planned strategic and deliberate organizational change.

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 (now commonly termed digital) technologies, have provided opportunities for the adoption of new management practices - especially

DOI: 10.4018/978-1-7998-7297-9.ch078

those based on principles of performance monitoring, reporting, staff 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, deliberate organizational strategies have 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 work organization, professional autonomy and localised decision making (Fowler & Gilfillan, 2003; Pollock & Cornford, 2004; Oliver & Romm, 2009; Wagner et al., 2010). The rise of managerialism, underpinned by ES technology and more recently artificial intelligence and machine algorithms, has given rise to a new form of technocracy based on key drivers of machine efficiency and effectiveness 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 the maintenance of 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 that also now extends to digital transformation strategies.

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 & 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 & 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 chapter is to contribute both to sociotechnical theory and practice, by examining IS improvisation practice through 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. This 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. This chapter is an updated version of our previous research study (Waring, Wainwright & Skoumpopoulou, 2016) with an extended discussion section that demonstrates the rapid acceleration of digital technology adoption in a university and the accompanying transformational and strategic changes; subsequently resulting in work force changes, deskilling and reskilling. Hence the notion of universities being increasingly viewed as a metaphorical 'production machine' to enable the mass production of students (Morgan, 2006).

21 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/enterprise-systems-power-and-improvisation/270364

Related Content

How Incumbents Respond Strategically to Emerging Digital Platform-Mediated Settings?: Analysis of Enterprise Software Vendors

Marisa Analia Sanchez and Juana Ines Zuntini (2021). *Disruptive Technology and Digital Transformation for Business and Government* (pp. 172-195).

www.irma-international.org/chapter/how-incumbents-respond-strategically-to-emerging-digital-platform-mediated-settings/275177

The Shift Towards Operations Management 4.0: Future Trends and Insights

Riham Adel (2024). *Digital Business and Optimizing Operating Strategies* (pp. 160-221).

www.irma-international.org/chapter/the-shift-towards-operations-management-40/336379

Enterprise IT Operations: Cognitive Automation and ignio™

Harrick Vin (2022). *Research Anthology on Cross-Disciplinary Designs and Applications of Automation* (pp. 74-82).

www.irma-international.org/chapter/enterprise-it-operations/291628

Assistive Technology to Promote the Independence and Quality of Life of People With Amyotrophic Lateral Sclerosis: A Selective Review

Donatella Ciarmoli and Fabrizio Stasolla (2022). *Analyzing Multidisciplinary Uses and Impact of Innovative Technologies* (pp. 69-94).

www.irma-international.org/chapter/assistive-technology-to-promote-the-independence-and-quality-of-life-of-people-with-amyotrophic-lateral-sclerosis/308970

Effects of Employee Performance on the Implementation of Total Quality Management: Perspective of Working Mothers

Nur Aqilah Adilah Hj Abd Rahman and Heru Susanto (2022). *Handbook of Research on Big Data, Green Growth, and Technology Disruption in Asian Companies and Societies* (pp. 175-194).

www.irma-international.org/chapter/effects-of-employee-performance-on-the-implementation-of-total-quality-management/290706