Chapter 4
Feral Systems and Enterprise Resource Planning Systems: Content and Dynamics

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ABSTRACT

Enterprise Resource Planning (ERP) systems continue, even in 2013, to be an important change agenda in business. This chapter initially addresses two major issues left aside in the Information Systems (IS) research on ERP: The technological content and the time dynamics. Using two different small reviews of journal articles, the authors conclude that ERP research is disregarding the profound technology changes and their impact on the challenges for employees, when implementing and operating ERP. Actors within organizations are in fact attempting to cope with these profound technology changes and the business challenges associated with ERP implementations by finding ways to fit their practices into these large integrated systems, and one strategy is developing their own (feral) systems. The chapter concludes with a call for more training and education for all employees in the content of the ERP and a need to build more contextual research in the study of ERP.

INTRODUCTION

This chapter looks at the research conducted on Enterprise Resource Planning ERP systems, with the view of relating past research and the identification of a gap in the research (namely a lack of understanding of the content of the software) with Feral Information System (FIS) development. In this we demonstrate that existing research into ERPs has largely ignored the content (i.e. software functions, procedures and architecture) of the ERP. We contend that this lack of emphasis on what the ERP is actually capable of doing and a lack of understanding of the software functions and basic architecture (referred to as content from this point on) could very well be a major reason for the development of FIS. In this
case the FIS could be developed through a lack of knowledge of what the ERP can do rather than a genuine information hole that is perceived to be in existence and needs to be plugged through FIS development.

The lack of understanding of the content of ERPs appears to be largely ignored by researchers as there appears to be a dominance of implementation studies within the ERP literature, and this has resulted in an emphasis on first Key Performance Indicators and other managerial benchmarks and second social issues such as work, organisation and change processes rather than a consideration of the technical content of ERPs. For example Furumo & Melcher (2006) suggest that an ERP implementation in many organizations involves a fundamental change from their legacy system (in many cases a centralized technology environment) to the new system (involving a distributed processing environment). This change alone in the way the technology is presented could have implications for end-users and could lead to attempts to “maintain the status quo” or even circumvent the new system to ensure that it fits the “requirements”, with requirements based on the old models and ways of doing business. This mindset could then easily become a fertile ground for the development of FIS.

Excerpts from the cases studies indicate that the temptation to develop such systems is very strong, which, as mentioned throughout this book, has become much easier over time with ubiquitous computing, better and more user-friendly software that allows end-users to develop their own applications and the advent of the cloud that allows this development to occur anywhere and at any time. Therefore this chapter looks at existing academic studies into ERP research to ascertain the level of research that has been conducted into content analysis and how actors in an implementation interact with the external implementation team. We consider this to be a very important topic as any deficit in knowledge at the operational level could result in confusion and misunderstandings, and this could lead to FIS development. In addition the existing work practices can lead to a resistance to change mindset and further exacerbate the desire to maintain legacy systems or create FIS. At this point, we must caution the reader that we do not expect this research to lead to a clear causal relationship between a lack of knowledge of ERP content and FIS development; however we do hope to demonstrate that this lack of content knowledge and a desire to maintain the status quo could possibly lead to the development of FIS. We also provide circumstantial evidence of FIS development in the case studies provided and suggest that the content issue was a major factor in their development.

This chapter is structured in the following way. Firstly we review the existing ERP research in order to understand the range of views of the ERP in terms of technological determinism, social construction and other views that may involve structuration theory and actor network theory. The next step is to look at the research in terms of the categories of Nominal, Tool, Computational, Proxy and Ensemble as defined by Orlikowski & Iacono (2001) in order to establish the degree to which ERP content is explored in each research paper. This categorization enables us to determine the level of “depth” the research has taken in accounting for the effect of a lack of knowledge of ERP content with respect to implementation issues. We further extend this to the practitioner view and their propensity to develop FIS. This is done through the examination of transcripts from a series of case studies.