Chapter 12


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ABSTRACT

In order to gain deeper insights into the causal factors associated with feral systems, it is necessary to first understand how the underlying, and often unchallenged, assumptions of current theories shape, influence, and ultimately limit our understanding of these phenomena. A meta-theoretical analysis is presented to make more explicit the foundational assumptions guiding much of the current literature and demonstrating the various limitations associated with these assumptions. The implications of these limitations for theory development are then examined. The main conclusion drawn is that the dominant discourse in the Enterprise Resource Planning Systems literature has used overly simplified concepts to understand complex phenomena like feral systems, which are open, non-linear, context-sensitive, and value-driven. The efforts of scholars would be more effective if directed to a clearer appreciation of the present limitations on how feral systems are understood rather than simply conducting more research using the same approaches that have dominated to date.

INTRODUCTION

Enterprise resource planning systems (ERPSs) are “commercial software packages which enable the integration of transactions-oriented data and business functions throughout an enterprise” (Laing & Xue, 2005, p.399). The extant literature on ERPSs has provided empirical evidence which at times appears contradictory. When placed across a continuum, at one end this evidence is moderately populated with examples of the considerable contribution that ERPSs have made to improve the performance of large and medium sized organisations, irrespective of industry types (Davenport & Brooks, 2004; Li, Markowski, Xi & Markowski, 2008; Su & Yang, 2010). The middle is densely populated by examples
of ERPSs struggling with implementation difficulties and large overruns in both cost and time (Akkermans, Bogerd, Yucesan & van Wassenhove, 2003; Hutton, Lippincott & Reck, 2003; Kallunki, Laitinen & Hanna, 2011; Lafranboise & Reyes, 2005; Venkatachalam, 2006). The other extreme of the continuum is more sparsely populated with examples of such poor benefits capture as to be classified as failures (Davenport, 2000; Gupta & Kohli, 2006). This poor capture of benefits is further exacerbated by ERPSs often accounting for the single greatest information technology (IT) expenditure both in terms of initial IT costs (Mabert, Soni & Venkataramanan, 2003) and ongoing IT costs (Chung & Snyder, 2000). The high variability in ERPSs’ results, combined with the large financial investments involved, clearly demonstrate why ERPSs represent a high risk for most organisations (Vandaie, 2008). The fact that ERPSs have been developed and implemented across the world for over two decades and still continue to experience serious difficulties (Helo, Anussornitisarn & Phusavat, 2008), suggests that our current understanding of how to achieve targeted benefits realisation with ERPSs remains limited.

Acquiring greater mastery of how to improve on benefits realisation requires a deeper understanding of the body of knowledge which informs practice. For a body of knowledge to grow and prosper it in turn needs to understand its limitations (Dreyfus, 1998; Smith, 2003). The sources of these limitations can include taken-for-granted assumptions, conceptual restrictions and the exclusion of certain types of knowledge imposed by the type of research paradigms used. Because the limitations in any body of knowledge can have profound implications for practice and theory development, it is important to gain a greater understanding of the role they play. The ongoing difficulties associated with ERPSs in areas such as implementation suggest that the case to generate a greater understanding of the limitations in ERPS theory is both justified and compelling.

**Limitations of Current Knowledge**

**Feral Systems as a Vehicle for Exploring ERP Knowledge Limitations**

The vehicle chosen to explore these limitations in the body of knowledge which informs ERP practice is “feral systems”. A feral system is “an information system [computerised] that is developed by individuals or groups of employees to help them with their work, but is not condoned by management nor is part of the corporation’s accepted information technology infrastructure. Its development is designed to circumvent existing organisational information systems” (Houghton & Kerr, 2006, p.137). The rationale for choosing this vehicle is that the persistence of feral systems in ERPSs offers a rich means by which to explore deeper issues that are linked to limitations. “Feral systems” provide clear empirical evidence which appears to challenge the fundamental assumptions of ERPSs. The foundational premise of this body of knowledge is that ERPSs can resolve the core problem faced by most other information systems, notably the lack of integration. Integration is claimed to be the key point of differentiation that allows ERPSs to create far greater value than other information system (IS) based solutions (Basu & Lederer, 2011; Chung & Snyder, 2000; Ke & Wei, 2008). ERPSs can more consistently provide information to organizations in a standardized, centralized, and cost efficient manner (Muscatello & Chen, 2008) than promising alternatives such as web-based solutions. Benefits realisation rests on seamlessly integrating all of the information flows throughout a firm, thereby providing an organization with...
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