An exploration of enterprise technology selection and evaluation

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Abstract

The evaluation-and-selection of enterprise technologies by firms has been said to be largely rational and deterministic. This paper challenges this notion, and puts forward the argument that substantial ceremonial aspects also play an important role. An in-depth, exploratory longitudinal case study of a bank selecting a ubiquitous and pervasive e-mail system was conducted using grounded theory and a hermeneutic [pre] understanding of institutional and decision making theories. Intuition, symbols, rituals, and ceremony all figured prominently in the decision process. However, rather than being in conflict with the rational processes, we found them to be in tension, leading to a more holistic social construction of decision processes. For researchers, this suggests that a focus on process rationality, not outcomes, might lead to a fuller understanding of these critical decisions. For managers, it underscores the importance of understanding the past in order to create the future.

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1. Introduction

The definition and study of Enterprise Systems (ES) has evolved from its initial resource planning focus to a broader approach that typically includes aspects of ‘integration’ and ‘best practice’. These concepts, however, are imprecise and may differ across contexts and perspectives. Not only do best practices frequently exist in the eye of
the beholder and vary within industries but integration is rarely a dichotomous condition and can be implemented at a variety of levels and in a number of ways.

Furthermore, although the expanded definition allows us to increase the relevance of ES research, ES are frequently characterized by debate about their adoption, use, and efficacy and there is a growing recognition that they must be studied longitudinally and within their technological and organizational context. For example, Orlikowski and Iacono (2001) remind us to consider the specific aspects of technology that affect our research and Robey and Boudreau (1999) recommend that we consider ‘logic of opposition’ and recognise implicit contradictions and opportunities by focusing on theories that promote and oppose social change and explain a wider range of outcomes.

This paper ameliorates understanding of organizational evaluation-and-selection between ES by describing longitudinal research conducted through institutional and decision theory lenses at Fidelis, a large financial institution. Believing that industry best practices required a reduction in the number of systems and wanting to integrate a new application, evaluative and decision processes were used to justify a move from multiple systems to a product in use at other organizations and compatible with a new application under consideration.

Technology evaluation and decision making is usually considered a predominantly analytic or traditionally rational activity where options are compared against criteria such as efficacy, market share, and total cost of ownership (TCO). In this characterization, noninstrumental or ceremonial elements of the decision process are frequently ignored, omitted entirely, or at the very least discounted. However, following an extensive qualitative case oriented research methodology that focused on the technological and organizational context, ES evaluation-and-selection processes were found to consist not only of traditionally rational quantitative and qualitative elements but interwoven in a fabric made up of ceremony and ritual.

The paper proceeds as follows. In Section 2 we describe the state of technology selection-and-evaluation research and introduce the methodological and theoretical perspectives applied: case study research and grounded theory within an umbrella of phenomenological hermeneutics bracketed by decision and institutional theory. This is followed by a description of the research site, data collection and analysis: longitudinal interviews with multiple respondents analyzed using Atlas/Ti. Section 4 presents the findings and interpretation, and the final section concludes with implications for future research and theory development.

2. Background and theoretical methodology

This section briefly summarizes evaluation-and-selection research, institutional and decision theory, and grounded theory and hermeneutics.

2.1. Technology evaluation-and-selection

The empirical study of research on technology evaluation-and-selection is a relatively new area, and work is predominantly exploratory (Riddle and Williams,
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