

Chapter 2.27

User Behaving Badly: Phenomena and Paradoxes from an Investigation into Information Systems Misfit

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ABSTRACT

In its formative years and during the 1990s, Global Energy PLC (GE) went through a series of structural changes precipitated by the deregulation of the electricity industry in the UK. The severity of these changes had a disruptive effect on its enterprise information systems, which were found unable to adapt to the new and constantly emerging organizational realities. GE's experiences illustrate the vulnerability of information systems in turbulent environments, provide for a rich description of the causes of misfit due to contextual change, and establish the ability of a system to flex and adapt as a dependent success variable. In addition, the idiographic details of this interpretive field study raise interesting questions about a number of assumptions we hold regarding

the development of information systems and the means by which flexibility can be attained.

INTRODUCTION

Avison and Fitzgerald (2003) identified instability as a “notable trap” of the Systems Development Life Cycle (SDLC) approach due to the modeling of processes that are unstable because of changing business and markets. Similarly, Lycett and Paul (1999) argue that the methodical approach to system development leads us to design systems that are unable to deal with the challenge of evolutionary complexity and work in a dynamic world. If the future is one which change will have to be reacted to continually, we understand “disappointment” as a resulting phenomenon due to the destabilization imposed by change

on information systems (IS) that have not been designed to provide for it. On the contrary, the post-industrial organization should demonstrate adaptability and therefore must be characterized by frequent and continuous change in structures, domains, goals, and so forth, even in the face of apparently optimal adaptation (Huber, 1984). It is our contention that so should its IS. Flexibility as a success variable for IS – albeit implicitly or with varied placement of emphasis – has also been stressed by Blumenthal (1969), Swanson (1982), Gunton (1989), Fitzgerald (1990), Cotrell and Rapley (1991), and Oei, Proper, and Falkenberg (1994), among others.

Needless to say, the myriad of reasons that determine whether an IS is successful or not can be matched by an equal number of explanations. Arguably, one of the prevalent methods of inquiry that characterizes a large body of the empirical IS literature revolves around the concept of “fit” as defined by the contingency approach in organizational theory. In general, such research is grounded on the argument that any determination of information requirements must be based on the organizational use to which the IS is put. Hence, the success of any IS must be measured in terms of what it accomplishes in the organization. Thus, a direct approach is mostly followed, aiming to define what the relevant factors affecting the interaction effect or fit between a pair of organizational components (structure, culture, tasks, technology) are and then develop a measurement instrument with standard metrics (e.g., Goodhue & Thompson, 1995). This largely positivist stance adopted by the majority of researchers has deprived the IS field from the rich and insightful descriptions that are mainly possible through interpretive field studies. However, providing for rich descriptions of phenomena under investigation, the premise of interpretive research is important as it helps the practitioner to re-evaluate his mental frames of reference resulting in more effective implementation strategies of computerized IS in organizations.

Setting epistemology aside, it is surprising to report that flexibility as a determinant of fit or as a dependent variable for IS success has achieved little attention. What explains this may be a set of beliefs and assumptions practitioners and academics alike hold about systems development. One can safely argue that one assumption currently held about systems is that they do indeed need to be maintained and that after implementation they simply enter the “maintenance-forever” phase. IT/IS managers and personnel accept this as a reality of their profession. Still, as Gibbs (1994) notes “...some three quarters of all large systems are ‘operating failures’ that either do not function as intended or are not used at all” (pp. 72-73).

The case study reported in this paper aims to challenge this very reality by arguing that maintenance is simply not enough for the contemporary organization of the 21st century. To the best of our knowledge, no research has been reported that tries to address and enhance our understanding of this issue from an interpretive point of view. In our investigation of the effects of privatization on the IS of an industrial organization, the approach allowed us to (a) illustrate the vulnerability of IS to contextual change, (b) understand the possible effects of change on IS and the ensuing repercussions on organizations, and (c) contribute valuable insight on the topic of IS flexibility. While the paper does not purport to offer definitive solutions, the experiences reported herein suggest lessons for organizations faced with the challenge of planning for and developing flexible information systems. Those will incite awareness and help IT managers to anticipate what they will probably experience should they not approach flexibility as a vital fit relationship and not cater for the accommodation of change, not only in the design of the IS themselves but in the structure and capabilities of the very corporate IS organizations they manage. The following section provides a critical review of the literature on IS fit, success, and failure. Then, we present our epistemological assumptions and research design. The analysis and interpretation

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