IGI PUBLISHING **ITJ 4645**

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This paper appears in the publication, International Journal of Actor-Network Theory and Technological Innovation, Volume 1, Issue 1
edited by **Arthur Tatnall © 2009, IGI Global**

Have You Taken Your Guys on the Journey?:
An ANT Account of Information Systems Project Evaluation

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ABSTRACT

Pre-investment evaluation of information system (IS) project proposals persists to be problematic and highly risky in practice. Numerous evaluation approaches and methodologies offered in the literature have not contributed to major improvements in practice. We propose here a radical departure from the dominant conceptions in IS evaluation literature by adopting Actor-Network Theory (ANT) to provide a better understanding of the evaluation of IS proposals in practice and examine the ways in which the evaluation process shapes and ensures the selection of the best IS projects. By drawing on a field study of the IS evaluation processes in a company with a history of IS successes, we reveal the relational nature of IS project proposals and the ways they are constitutively entangled with business processes and practices. We demonstrate how the practice of IS evaluation produces the 'object' it evaluates, and how the IS project proposal is produced as a focal actor by relations in the actor-network emerging around it.

Keywords: *actor-network theory; IS project proposal evaluation methodology; pre-investment IS project evaluation process; socio-technical approach*

INTRODUCTION

Since its infancy information systems (IS) research has struggled to reconcile the technological and the social nature of information systems, and to investigate them in an integrated and coherent way. Most IS research assumes a conventional separation between the technological (material) and the social (human, organizational). Such separation has been a defining feature of the discourses in the IS discipline. This is evident in both the technology focused perspective and the social/organisational

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perspective of IS studies. The technology focused research on IS development, implementation, and use typically employs a functionalist and instrumental approach producing claims about IS characteristics and their impacts on various measures of business and organisational performance. Underpinned by technologically deterministic and economic rationalist views this perspective reifies technology and largely neglects the complex and subtle ways IS are entangled with and mutually constituting human action and work practices within social, historical, cultural and political contexts. In contrast, the social and organisational perspective that adopts an interpretive, social constructivist or critical approach, focuses on how individuals make sense of, use, and engage with IS, sensitive to interpretations within and implications for particular power relations and socio-cultural and political contexts. While this perspective reveals numerous, more or less visible, ways in which IS enable transformation of work practices and organisations (e.g. increasing control and managerial domination), it privileges the social and organizational side at the expense of the technology. It considers technology as 'interpretively flexible' (Pinch and Bijker 1984) but separate and independent.

Research on IS project evaluation presents a paradigmatic case of the conceptual separation between the social/business world and the technical world. In the IS and software engineering literature IS projects (including IS specification, design and application software) are seen as autonomous entities which, once implemented, will have implications for business processes and organizational performance. The IS project evaluation literature is therefore principally concerned with the assessment of the future business implications of IS projects, including calculation of costs and benefits. Numerous IS project evaluation methodologies have been proposed and tested for this purpose (e.g. Cost-Benefit Analysis, Discounted Cash Flow Analysis, Net Present Value, Payback Period). Despite increasing sophistication of these predominantly financial evaluation methodologies, IS project evaluations and investment decisions in practice remain problematic and highly risky. The high failure rate of IS projects—as high as 50-70% according to different sources—indicates the severity of the problem (The Standish Group International, 2001, Sauer and Cuthbertson, 2003, Luna-Reyes et al., 2005).

We suggest that one of the key problems with these dominant approaches to IS evaluation in organisations is the presumption of separate existence of technology and organisation, which consequently limits research to the examination of 'the influence of the future IS on an organization's performance'. While it is assumed that IS projects are developed based on the needs of business and that once implemented and operating within a business context, the IS will influence and change this context, the IS and its business/organizational context are considered ontologically separate. This presents a conceptual difficulty when faced with the everyday ubiquity of IS in working and organising processes and the ways IS and the business, organizational and social are inextricably linked and intermeshed. Aren't we in IS research perpetuating an artificial (considered 'scientific') division between the technological and the business/social that limits our understanding of IS project evaluation and hence prevents us from doing something about such a formidable problem in the IS practice?

In this article we propose a radical departure from the dominant conceptions

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