The Relationship Between User Participation and the Management of Change Surrounding the Development of Information Systems: A European Perspective

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INTRODUCTION

Information systems development is a multi-dimensional change process that presents itself simultaneously within several related social environments—as a reality, it is socially constructed (Visala, 1991). The conventional wisdom within the information systems community argues that user participation is a core ingredient in this change process and is vital for successful outcomes in terms of both process and product (see Ives and Olson, 1984). However, two comprehensive reviews of research on the phenomenon of user participation revealed that the relationship between user participation and successful systems development is neither grounded in theory nor substantiated by research data (see Ives and Olson, 1984 and Cavaye, 1995). In addition, this paper argues that insufficient attention has been paid to the relationship that exists between user participation in systems development and the issue of organisational change surrounding the development and implementation of information systems: as a consequence, that relationship remains ill-defined and thus little understood. In order to address this deficiency, the study maintains that it is only by conceptualizing information systems development as a change process (Boland, 1978; Lyytinen, 1987), and by adopting a perspective that incorporates both user participation and management of change as being instrumental in determining the ultimate success of developed systems, can the relationship between these two concepts and their consequences be evaluated, explained, and understood. A conceptual model that incorpo-
rates the institutional context or framework within which the IS development sub-processes of user participation and management of change are effected, and which attempts to capture the interrelationships between factors that are posited to constitute these sub-processes is presented. The model’s core components are drawn from institutional theory (North, 1990; Rowlinson, 1997), Cavaye’s (1995) analytic framework, which was extended and elaborated by Butler and Fitzgerald (1997), and from seminal contributions of previous research on the phenomena of user participation and systems implementation (see Boland, 1978; Ives and Olson, 1984; and Orlikowski, 1993). The model helped formulate appropriate research questions to guide and direct case description, report its findings, and make appropriate conclusions.

As Orlikowski’s (1993; p. 310) seminal investigation of the relationship between CASE and organisational change revealed, a process-based approach incorporating grounded theory “allows a focus on contextual and processual elements as well as the action of key players associated with organisational change.” The constructivist paradigm not only incorporates a grounded theory perspective, it also offers researchers added rigor by providing an ontological, epistemological and methodological framework from which to conduct qualitative research (Erlandson et al., 1993; Guba and Lincoln, 1994). Mature disciplines within the social sciences have accepted the need for a philosophical as well as a methodological rationale to underpin research; hence, a constructivist approach to research was adopted in order to apprehend the socially constructed reality that is information systems development in organisations (Visala, 1991; cf. Berger and Luckmann, 1966; Guba and Lincoln, 1994). The primary objective of this study, then, is to identify the critical elements that shape and influence the relationship between user participation in the development and implementation of organisational information systems and the process of change management surrounding the successful implementation of such systems. The research data is drawn from a case study of the development and implementation of two operational support systems in a large telecommunications company. Prior to presenting an analysis of the case data, the model and its analytical perspectives are first discussed.

A MODEL OF USER PARTICIPATION AND MANAGEMENT OF CHANGE IN THE INFORMATION SYSTEMS DEVELOPMENT

While IS researchers such as King et al. (1994) and Kling and Iacono (1989) both incorporate institutional theories into their work, Orlikowski (1993) provides a graphic example of the importance of institutional contexts, environmental, organisational, and IS, and their impact on organisational change associated with the introduction of CASE. The role played by institutional frameworks in shaping organisational behaviour has been the subject of study and debate for some time now by economists and organisational theorists (see Rowlinson, 1997). Drawing on insights provided by North (1990), it can be argued that an organization’s policies on systems development, particularly those related to issues of change management and employee participation, constitute a set of formal and informal criteria, the so-called ‘rules of the game’, that help to mold human interaction in the pursuit of organizational goals and objectives. North argues that such policies shape and influence the institutional framework or context within which an organization’s business routines are formulated and executed. Aaen (1986) has underlined the importance of managerial policy making in shaping the trajectory of the development process and its outcomes (cf. Ives et al. 1980). Hence, this paper argues that an organisation’s policies on user participation in systems development and development-related change shape its institutional context through their formative influence on: (a) organisational culture and climate (Robey and Azevedo, 1994); (b) the type of participation (Mumford, 1979); (c) the degree of participation (Ives and Olson, 1984); (d) content and extent of participation (Hirschheim, 1983); and, finally, (e) the formality and influence of participation (Mumford, 1979) in systems development. With these institutional contexts (or ‘rules of the game’) in place, the manner in which development proceeds is argued to be directed and effected by:

1. Project-related factors
2. Process-related factors
3. User-related factors.

The content and manner in which the project-, process-, and user-related activities are carried out is argued to be shaped and influenced by their institutional context (see, for example, Orlikowski, 1993). The proposed dimensioned sets of factors are based on Cavaye’s (1995) analysis and have been extended and elaborated by Butler and Fitzgerald (1997).

The interaction of institutional contexts and these factors are argued to determine system success in terms of user perceptions of system quality and user acceptance of the system. User acceptance of the implemented system is argued to be particularly dependent on the manner in which change is managed. The model illustrated in Figure 1 will, therefore, help illuminate the relationship between an organisation’s institutional framework, project-, process-, and user-related factors, and development outcomes such as product quality and acceptance.

Boland’s (1978) seminal work illustrates that a change approach (a bottom-up, participative strategy as opposed to the top-down traditional approach) to systems development attempts to have developers and users participate in joint problem solving with the objective of arriving at a systems solution through consensus. Resistance to change surrounding the implementation of the new system is thereby negated (Zmud and Cox, 1979). However, with few exceptions (see, for example, Ginzberg, 1981; Tait and Vessey, 1988; Krovit, 1993), the relationship between user participation in
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