Communicating and Coordinating: Occasions for Information Technology in Loosely Coupled Organizations

Jonny Holmström, Umeå University, Sweden
Marie-Claude Boudreau, University of Georgia, USA

ABSTRACT

This article uses the theory of loose coupling to explain failure in the adoption of a technology that was supposed to improve collaboration across one organization’s internal boundaries. The research details an interpretive case study of a single organization, MacGregor Crane, in which relatively autonomous individuals are connected only loosely in terms of their daily interactions. The company implemented Lotus Notes® in an attempt to increase collaboration. However, this effort failed because employees in various units, particularly engineering, were reluctant to share information across unit boundaries. In light of these findings, it is suggested that the successful implementation of a collaborative IT within a loosely coupled organization should involve the reconsideration of the organizational members’ roles and functions.

Keywords: communication; coordination; loose coupling; organizational change; organizational consequences of IT

INTRODUCTION

Managers increasingly are concerned with facilitating the creation, storage, dissemination, and application of organizational knowledge. Successful use of information technology (IT) in an organization rests upon an organization that possesses a supportive culture characterized by high trust, willingness to share information, and commitment to organizational goals. To this end, typical barriers to the successful adoption of IT in organizations can be found in political friction between organizational roles (Orlikowski, 1992).

This article is based on a study conducted at MacGregor Crane, an organization in the business of developing and constructing shipboard cranes. MacGregor Crane includes a number of organizational members who work largely in parallel with one another. MacGregor Crane fits the general description of a loosely coupled system, a description that underlines how organizational members have great latitude in interpreting and implementing directions despite the presence of other organizational members. Weick (1979) stresses the autonomy of individuals and the looseness of the relations.
linking individuals in an organization. Whereas loosely coupled systems are characterized by both distinctiveness and responsiveness (Orton & Weick, 1990), a potential downside for loosely coupled systems is poor collaboration among organizational members. The IT project initiated at MacGregor Crane was aimed at dealing with this problem.

The use of IT for coordination is more complex than is suggested in the academic and practitioner literature (for a discussion, see Kling, 2002). Coordination, as the management of dependent activities (Malone & Crowston, 1994), is central to organizing, and as more and more organizations become flat and outsourced, many organizations look to new technologies to help them organize. Looking for solutions to the problems of lack of collaboration among organizational members, MacGregor Crane turned to IT as a possible solution. MacGregor Crane decided to launch a project aimed at delivering a collaborative technology, Lotus Notes®, which was expected to increase collaboration both within and across professional boundaries.

The goal of this article is to explain an organization’s failure to successfully implement a technology targeted at increasing collaboration among organizational members. More specifically, our core research question asks, “Why was MacGregor Crane unsuccessful in fostering collaboration supported by Lotus Notes®?” We suggest that loose coupling (Meyer & Rowan, 1976; Weick, 1979) is a particularly appropriate theory to answer this question, as MacGregor Crane fits the general description of a loosely coupled organization.

The article is structured as follows. The second section discusses organizational change, collaborative technology, and loosely coupled systems. In the third section, details about our inquiry at MacGregor Crane are provided. More specifically, this section describes the selected site and the research approach, followed by an account of MacGregor Crane’s Lotus Notes® implementation. A discussion of the case study findings is presented in the fourth section, followed by concluding remarks in the fifth section.

REVIEW OF THE LITERATURE

The relation between IT and organizational change always has been a central concern for IT practitioners and academicians. While new IT shapes organizational behavior and structure, the role and meaning of IS is shaped largely by organizational circumstances. The two are inextricably intertwined; there is a reciprocal relationship between ITs and organizations, each shaping the other (DeSanctis & Poole, 1994; Kling & Iacono, 1989; Monteiro & Hanseth, 1995). In other words, contemporary organizations are entangled with technology. One cannot understand organizations without understanding technology, nor can they understand technology without understanding organizations. Clearly, IT has the capacity to enable change in various ways: the ways in which organizational work is executed (DeSanctis & Poole, 1994); the effectiveness and efficiency of an organization (Fiedler et al., 1995); the knowledge demanded for the execution of various tasks (Ehn, 1988); the organizational and occupational structure of work (Barley, 1986; Kling & Iacono, 1984; Orlikowski, 1996); and the possibilities for collaboration (Zuboff, 1988). Collaboration and coordination as a type of organizational change often associated with the use of IT is of interest here.

Collaborative Technology Implementations

Many scholars that are interested in organizational communication and coordination have focused on interfirm networking and the IT infrastructures that support them. While it is accepted that innovation tends to occur in highly interacting and collaborative organizations (Miles & Snow, 1986) it also should be noted that innovation is dependent on a well-working integration of technological resources (Kodama, 1995).

The impacts that result from the implementation of collaborative technology have been investigated quite frequently by both