This article reviews and contrasts the experiences of two major companies in attempting significant change projects incorporating information and communication technologies. It does so by utilizing and critiquing the MIT “Management in the 1990s” model and by reflecting on socio-technical approaches to organizational change. It makes the point that while much of current attention is on electronic commerce as it pertains to industry transformation and inter-organizational relations, it is nonetheless a phenomenon that can impact complex internal relations and communication in addition. Additionally, conclusions are drawn with respect to the process of change and the need for further longitudinal studies when researching change projects of this kind.

INTRODUCTION

It goes without saying that electronic commerce has been a major topic of interest in recent years, with considerable importance being placed on the opportunities provided by information and communication technologies (ICTs) to improve coordination between businesses and with customers. Electronic commerce resonates as a potential means of finding solutions to some of the inter-
organizational communication issues that confront modern-day businesses. However, with globalization, companies are themselves increasingly widely dispersed geographically so that internal communications are also more difficult and complex. ICTs can therefore also potentially improve communication between individuals and groups within an organization. This suggests that we might usefully broaden and unpack the concept of electronic commerce to include intra-organizational collaboration and partnerships. For example, corporate intranets, ERP systems, corporate databases and even internal email systems are all examples of electronic commerce that are increasingly used within a company. These ICTs enable data, knowledge and information to be shared even when the individuals involved are widely distributed. However, while intra-organizational electronic commerce can provide a communication link between people who are functionally, hierarchically or geographically separated, this does not necessarily mean that the social and psychological barriers between groups will be broken. The cases reported in this paper demonstrate very clearly that technology per se will not automatically improve communication between groups where long-standing barriers exist.

The importance of breaking down functional and hierarchical barriers has long been recognized in the information systems world. In academia, our roots in systems thinking provide us with a conceptual base for viewing organizational issues from a process orientation, with information requirements being associated with those activities necessary to achieve a desired purpose (e.g., Checkland, 1981). This so-called infological approach has been paralleled by what might be called a datalogical perspective, where the focus is on an analysis of the data entities – and their relationships - required to provide necessary information (Martin, 1982). These concepts have found practical form in such phenomena as database technologies and approaches, and more recently in business process reengineering (BPR), and knowledge management and knowledge management systems (KMS) (see, for example, Davenport, 1993; Alavi & Leidner, 1999).

This paper describes research concerning two companies that have been seeking to improve collaboration and communication internally across functional and departmental boundaries through the use of ICT. In one case the development and introduction of the ICT-based system leads to unintended, negative effects; in the other, there is preliminary evidence to suggest that the results have been much more positive. The experiences of the two companies help to reinforce lessons that have been known for some time1 as well as providing new insights. The fact that these two cases are contemporary and that there appears to be evidence that some of the lessons of the past have been forgotten or have remained unheard, suggests that the comparison may be enlightening.2

The paper is structured as follows. Following this introduction, we will describe the methodology followed in the research upon which the case studies are
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