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Chapter XII

Learning from Patterns During Information Technology Configuration

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Abstract

This chapter asks how people can be assisted in learning from practice, as a basis for informing future action, when configuring information technology (IT) in organizations. It discusses the use of Alexanderian patterns as a means of aiding such learning. Three patterns are presented that have been derived from a longitudinal empirical study that has focussed upon practices surrounding IT configuration. The paper goes on to argue that Alexanderian Patterns offer a valuable means of learning from past experience. It is argued that learning from experience is an important dimension of deciding "what needs to be done" in configuring IT with organizational context. The three patterns outlined are described in some detail, and the implications of each discussed. Although it is argued that patterns per se provide a

valuable tool for learning from experience, some potential dangers in seeking to codify experience with a patterns approach are also discussed.

Introduction

Information Technology (IT) represents something of a paradox for many people with responsibility for managing IT in organizations: On the one hand it is notoriously difficult to predict what may happben during the development and/or application of IT (Williams, 2000), and yet, IT developments are considered important for the survival of many organizations given their dependence in terms of both frequency of use and variety of application (Dierkes, Marz, & Teele, 2001). Those tasked with managing IT developments, particularly those involving non-bespoke systems, address this paradox through a process of configuring IT with organizational context. Configuration refers to the ways in which people work to get technologies to "fit" their organizational settings, that is, configuring non-bespoke technology with institution specific structures, methods, praxis, and requirements (Williams, 1997). The concept of "fit" expressed here reflects elements of mutual shaping of both technology and context. Configuring IT is both fraught with uncertainty, and yet, essential. We see the concept of IT configuration as an intrinsic part of organizational practice, requiring an assessment of what must be done to ensure both that the technology works, and that it is used, that is, incorporating issues of acceptance and adoption.

In this chapter we present an approach that we argue may have value in aiding IT configuration in organizations, specifically by using patterns as a means of learning from what has happened previously. By learning we refer to the various ways in which people extend and/or restructure the body of knowledge, developed cumulatively by individuals and groups (Weick, 1995).

Several authors use the term pattern in relation to the application of IT in organizations (e.g., Adams, Koushik, Vasudeva, & Galambos, 2001), but rarely is the term explored. It appears that for many authors the term *pattern* refers to something that is seen as having a taken-for-granted meaning that requires no further explanation, definition, or exploration. Let us begin, therefore, by introducing a working definition of a "pattern" as a concept. We shall expand on this later in the paper, but for the moment we mean *a recurring metaphor, policy, design, action, instrument, or artefact that is specific to some context and reflects a situation of interest*. We do not, therefore, regard the term *pattern* as being synonymous with either *process* (a series of events and/or actions) or *methodology* (a way of doing something). With this definition in mind, the concept of the pattern provides us with two opportunities. Firstly, we