Chapter XXI

Growing Systems in an Emergent Organization

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INTRODUCTION

The degree of organizational change is reaching a frenzied pace. Organizational change is currently driven by the rapid development of commercial technology, global markets and reengineered, quality-oriented organizations. This constant need to change gives rise to a recognition that human organizations in the current era are no longer stable, but are continuously adapting to their shifting environment. These organizations can be said to be in a state of constantly seeking stability, while never achieving it. Such organizations are said to be “emergent,” and include many of today’s commercial and government organizations.

When we refer to organizations as emergent, we are saying that every feature of social organizations—culture, meaning, social relationships, decision processes and so on—are continually emergent, following no predefined pattern. These organizational features are products of constant social negotiation and consensus building. The organization itself, or any of its features, may exhibit temporal regularities. But such temporal regularities are recognizable only by hindsight, because human organizations are always in process; they are never fully formed. We use the terms ‘emergent’ and ‘emergence’ rather than ‘emerging’ because ‘emergent’ refers to the state of being in continual process, never arriving but always in transition. ‘Emerging’ differs from ‘emergent’ because it gives rise to the possibility

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of a current state being a stage to a possible outcome and is always arising from its previous history and context. So organizational emergence refers to a theory of social organization that does not assume that stable structures underpin organizations (Baskerville et al., 1992; Truex and Klein, 1991). This theory indicates new assumptions about the environment in which information technology (IT) must succeed. For example, in the past, IT designers strove to create stable systems with a primary goal set that included low maintenance and long life spans. The relatively long life spans of stable information systems (IS) hinder organizational emergence. A goal of low-maintenance, stable systems means the organization is continuously battling against its constraining information systems as it adapts to an ever-changing environment. Under this goal IS will inhibit rather than facilitate organizational change.

There have always been limited means to match IS development to a rapidly changing organization. The available means include prototyping, end-user development and open systems connectivity. But these are inadequate because they are not connected through a coherent framework that focuses on the emergent character of organizations. If emergence, rather than stability, is taken as the dominant character of organizations, at least in some periods, there is a need to radically rethink the way in which IS are developed. Rather than viewing information systems development (ISD) as a series of projects each having a clear beginning and end, emergence calls for a continuous redevelopment perspective. A continuous redevelopment perspective implies the creation of an ISD environment that is optimized for high maintenance rather than low maintenance. Within an organization where continual change is valued, low maintenance is evidence of an IT system that is unadaptable. These systems lead to stable systems drag, a condition in which the organization must adapt to both its environment and its petrified IT systems. With stable systems drag the IS actually inhibit adaptation, so organizational emergence must necessarily “break” free from the IS constraints. IT systems that do not produce stable systems drag are designed to adapt with the organization, shifting the organization’s essential adaptation constraints to the external environment and not its own rigid internal IT framework.

**LEVERS TO STIMULATE EMERGENCE**

A continuous redevelopment perspective not only involves the elimination of stable systems drag, but it also involves using IT to support and actually promote organizational emergence. In order to understand how IT can promote organizational emergence, we need to understand some of the forces behind organizational emergence. In this section we consider the three “levers of encouragement” that are known to stimulate emergent organizations. These are: shared reality construction, organizational self-reference and the dialectics of autopoiesis.

*Shared reality construction.* Organizational form, structure and activity are a result of complex and continuous interactions between organizational members. What is believed to be “real” for the organization is an outgrowth of these interactions and the constant negotiation of fact, opinion and meaning. Thus for all intents and purposes, the reality of any social organization is defined as whatever people in that organization believe is real. If the members of the organization agree that the organization is flat and sleek, then the organization is flat and sleek, for they act as if it