



## **Chapter 16**

# **Educating the Business Information Technologist: Developing a Strategic IT Perspective**

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*The current business environment requires that all Information Technology (IT) professionals, not just managers, develop a strategic perspective toward their work. This chapter discusses the importance of that perspective for today's business information technologist and proposes a framework for teaching strategic IT to non-managers.*

## **INTRODUCTION**

The ways in which computers have been applied to business have evolved over the past forty years. It is convenient, albeit over-simplified, to describe that evolution in three over-lapping stages. This three-era model is commonly used to highlight changes in computer applications (Ward, 1996). The first era was dominated by a culture of automation—basically, computerizing labor-intensive manual processes. The next era emphasized the development and management of information systems, focusing on using data collection systems to create information useful to business managers. The third era—the one in which we now work—embraces IT as a valuable strategic resource and critical asset of the organization. Organizations expect IT to create new ways to compete, new products, new

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processes, new marketing channels, and even new organizational forms that promote “better-faster-cheaper.”

Courses in management of information systems and technology, particularly leadership courses at the graduate level, have adapted to this new paradigm. These courses, designed for managers, regularly include management of information as a strategic resource and are amply supported by academic and professional literature. However, general undergraduate education in IT—that which produces the basic non-manager worker—continues to focus on producing programmers, systems developers, and systems analysts with first and second-era approaches to their work.

The demands on IT to deliver better-faster-cheaper require that all information technology workers adopt an entrepreneurial perspective consistent with third-era expectations. Organizations need more than traditionally educated programmers and analysts. They need business information technologists who understand such concepts as the organizational impact of IT, enterprise information architecture, enterprise application integration, rapid application development, and process re-engineering. A recent survey of 400 CEOs identified the most significant ways that IT delivers competitive advantage (“Competitive Edge,” 2000). Many of these (for example, improved sharing and use of knowledge) require a strong strategic perspective for all IT workers.

This chapter explains the need for fostering a strategic information perspective for non-managers, proposes a framework for developing that perspective, and illustrates a practical application of the framework.

## **A STRATEGIC PERSPECTIVE**

The context for discussing and pursuing “strategy” in IT has been developed primarily within the conceptual framework of Strategic Information Systems (SIS) and Strategic Information Systems Planning (SISP). Basically, a SIS is one that supports an organization’s competitive strategy—that is, its strategy for gaining advantage over its competitors (Ward, 1996). An effective SIS is one that enables an organization to use information to exploit opportunities and thereby stay ahead of its competition in the marketplace. Chief Information Officers (CIOs), Chief Executive Officers (CEOs), Chief Technical Officers (CTOs) and other upper-level managers must have a strategic perspective for effective information resource planning, design, and implementation. However, to fully exploit the enabling value of IT as a deliverer of better-faster-cheaper, non-manager IT implementers must also embrace a strategic perspective.

Set within the framework of IT as a strategic resource, consider these realities that dominate the contemporary IT environment, and which are serious challenges to the pace and manner in which all IT workers work:

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