

Chapter 10

The Evolving Role of the Chief Information Officer (CIO)

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ABSTRACT

The new role of CIO was created in the early 1980s, a time when organizations had just begun to recognize the strategic importance of IS. Prior to that, the most senior role in IS had been that of the IS Manager, a functional or line manager role with only limited involvement with top management. This new role was expected to work within the top management team to “bridge the gap” between the IS department and top management, to ensure the ongoing successful exploitation of IS across the organization. Today, it has been suggested that the role of CIO has now evolved to cover the need to also “bridge the gap” between the organization itself and its external IS technological environment. The purpose of this chapter is to review the IS management literature relating to the CIO in order to gain a greater understanding of the evolution of this role.

BACKGROUND TO STUDY

The objective of this chapter is to outline how the role of CIO has developed over the last thirty years. Specifically, the chapter will be of benefit to both researchers in the field of Information Systems (IS) and managers and practitioners in IS today. This chapter will address the evolving nature of the role, more specifically by mapping the evolving terrain of this role across three distinct eras, paying particular attention to a common set

of role-related characteristics both within and across eras. It will conclude by drawing out an agenda for further inquiry.

FOCUS OF THE INVESTIGATION

The role of the CIO has emerged, over the last thirty years or so, to become the highest-ranking Information Systems (IS) executive in many organizations. This new role was created, in the

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early 1980's, at a time when organizations had just begun to recognize the critical importance of IS for both their operational effectiveness and competitive positioning (Ferreira & Collins 1979, Ives & Learmonth 1984, McFarlan 1984, Porter & Millar 1985). Prior to that, the most senior role in IS had been that of the IS Manager. This role of IS Manager was essentially that of a functional or line departmental manager who had only limited involvement with top management (Ives & Olson 1981, Stephens 1991).

It was stated, at the time when this new role of CIO was created, that its primary responsibility would be to work with the top management team to "bridge the gap" (Synnott & Gruber 1981, p. vii) between the IS department and the lines of business, in order to ensure the successful exploitation of IS across the organization (Synnott 1981, Synnott & Gruber 1981). This primary focus on "bridging the gap" between top management and IS, highlighted the boundary spanning nature of this new role of the CIO, albeit focused internally (Katz & Kahn 1966, Mintzberg 1973, Kotter 1982).

Boundary spanning roles are seen to perform two key functions, namely: firstly, to process information received from sources external into their organizational unit, and secondly, to represent the interests of their unit within the wider organizational environment (Aldrich & Herker 1977, Tushman & Scanlan 1981). However today, in addition to "bridging the gap" between the IS department and the top management team, it has now been suggested that the CIO must also be able to identify strategic IS issues in the external technological and business environment, via their external boundary spanning activities, which can impact on the organization's success (Karahanna & Watson 2006, Smaltz, Sambamurthy et al. 2006, Galliers 2007). This would suggest, therefore, that the role of the CIO has, in fact, evolved and widened over the years, to include this critical need for them to now be able to also interact with the

external technological and business environment (Spitze & Lee 2012). The purpose, therefore, of this chapter is to review the IS management literature that has developed over the last thirty years, to gain a greater understanding of the evolution of the role of the CIO.

THE EVOLUTION OF THE ROLE OF CIO

A number of models have been put forward in an attempt to help describe how the management of IS in organizations has evolved over the years, with the growing sophistication in the use of IS (Somogyi & Galliers 1987, Hirschheim, Earl et al. 1988, Earl 1989, Ward, Griffiths et al. 1990, Ross & Feeny 1999, Somogyi & Galliers 1999). For the purpose of this review of the IS management literature, the researcher has chosen to adapt the model originally developed by Ross and Feeny (1999), as this model was specifically developed to address the evolution in the role of the CIO. This model is described in terms of three distinct technology eras: The *Mainframe Era*, The *Distributed Era* and The *Web Era*. Each of these technology eras has seen a fundamental shift in the range and type of opportunities available to organizations for the implementation of IS, based on the changes in the capabilities of the underlying IT technologies.

Whilst the researcher fully acknowledges the socio-technical nature of the field of IS research, and specifically that of the thematic area of IS management, such a technology based model is seen, by the researcher, as being an appropriate lens to use for this review of the IS management literature relating to the role of the CIO. The issues explored within the thematic area of IS management "partly reflect the evolution of IT and partly the learning process organizations have undergone regarding the management of IS

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