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## Chapter V

# A Genre-Based Method for Information Systems Planning

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### INTRODUCTION

Currently, corporations implement diversified computer-based information systems (IS). These include organization-scale solutions such as enterprise resource planning systems, inter-, extra-, and intranet applications, product data management, and enterprise document management systems. At the same time, the end user is ever more capable of rapidly developing and tailoring small-scale applications for groups, organizational units, and personal purposes independently (Grover, Teng, and Fiedler, 1998). Furthermore, corporations are investing in information technology infrastructures that take full advantage of global networking and business process re-engineering (Broadbent and Weill, 1997; Grover et al. 1998). The emerging types of systems are becoming necessities in many smaller companies too. For example, a successful subcontracting network may require certain systems to be used by all the partners. (Song and Nagi, 1997; Toh, Newman and Bell, 1998). Evidently, the above trends call for a holistic but dynamic organizational perspective on *information systems planning*<sup>1</sup> (ISP) (Huysman, Fischer and Heng, 1994; Grover et al., 1998; Spil & Salmela, 1999).

We define ISP as a *dynamic process where IS development and use are planned to better assist an organization in serving its purposes*. This definition is in line with many authors' definitions on strategic ISP (Lederer and Sethi, 1988; Fitzgerald, 1993; Spil and Salmela, 1999). It does not explicitly mention the concept of competitive/strategic advantage<sup>2</sup>. By such a scope we like to extend the area of ISP to be more suitable for different organizations with different purposes and to remind

that long range ISP must be done even if no competitive advantages can be achieved by using information systems. The definition underlines that ISP is neither an event that happens, nor a project that begins and ends, but a continuous *process* that converses with other processes or activities. In general, ISP should produce “a broad statement as to what extent the current or future portfolio of IS applications meets the needs of the organization and its individual participants” (Hirschheim, Klein, and Lyytinen, 1995, p. 106). Hence, the ISP process must intersect the strategy processes and also those at tactical or operational level (O’Connor, 1993). To summarize, ISP should help integrate:

- IS decisions with business development and
- Strategic IS decisions with practical IS development initiatives.

Since the early days of ISP, the IS literature has reported several problems with existing ISP methods (Lederer and Mendelow, 1986; Lederer and Sethi, 1988; Goodhue et al., 1992; Baker, 1995; Pant and Hsu, 1999). Lederer and Sethi (1988, p. 450-451), for example, provided an extensive list of ISP problems observed by IS researchers by the mid-1980s. They divided the problems into resource-based problems, problems with the planning process, and problems related to the planning outputs. According to their empirical findings, the contemporary ISP methods seemed to be very resource-consuming, and yet, resulting in IS plans that were not easily convertible into action (p. 454). In a subsequent study Lederer and Sethi (1992) analyzed the ISP problems in more detail and concluded that an ISP effort should be rapid and inexpensive.

During the past decade IS research sought for better integration of ISP and business planning (Galliers, 1993; Buchanan and Gibb, 1998; Teo and King, 1996). There is also empirical evidence that full integration of business planning and ISP can ease the ISP problems by providing greater communication and understanding between top management and IS management (Teo and King, 1996). Since the mid-1990s, the ISP literature has highlighted organizational learning, participation, and cooperation among IT experts, management, and all the end-users of information (Huysman et al., 1994; Smits and Poel, 1996). This is in line with the general trend in IS research of the latter half of the 1990s. The keywords are knowledge and knowledge management. The questions that must be answered are, how to improve organizational processes, how to adopt new technologies, and how to manage human resources. In the context of ISP this means a continuing need for new theoretical approaches<sup>3</sup> with practical methods<sup>4</sup> and techniques<sup>5</sup> that regard both human and technological aspects, resulting in a participative but still easy and inexpensive planning process. To summarize, the challenges of ISP for the future are:

- An ISP process should be dynamic and continuous and support wide participation, (aligning IS decisions with business decisions).
- An ISP process must be accomplishable with reasonable resources (an effective process).
- The outcomes of ISP must result in realistic and concrete plans supporting implementation (converting strategic and tactical IS decisions into concrete IS development).

This chapter provides a new ISP method responding to the above-mentioned challenges. With the method, an information resource is conceptually structured by genres of organizational communication. The IS plan builds upon an explicated and

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