Chapter 8 Creativity in the Information Systems Planning Process

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ABSTRACT

In face of growing global competition, the ability of organizations to effectively use information technologies to deliver innovation and creativity is widely recognized as an important competitive advantage. In this context, knowledge of how to apply creativity techniques to information systems planning becomes particularly relevant. This chapter presents a framework for the introduction of creativity in Information Systems Planning. The framework aims at promoting the development of innovative Information Systems, which traditional methods of requirements elicitation fail to address. Finally, we discuss how the framework was implemented at a public organization to identify information systems opportunities.

INTRODUCTION

Information Systems Planning (ISP) is a vital activity for the success and competitive edge of companies (Amaral, 2007) and (Ravishankar, 2010). The diversity of corporate activity sectors, the different contexts and organizational structures along with the growing complexity of the global-

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ized business world are a huge challenge for this project to become effective.

The ability of companies to efficiently use information technologies with respect to innovation and creativity are recognized as important factors for the competitive edge and agility of companies. Organizations naturally take benefit, through creativity and innovation, to reorganize their processes and products in a more effective way (Cooper 2000). In this context, the opportunity to apply creativity techniques to the generation of ideas that may have an impact in the Information Systems Planning process holds an immense generative potential. In response to this challenge, this chapter advances a framework for the introduction of creativity and innovation techniques in Information Systems Planning. Ultimately the framework aims at facilitating the development of Information Systems that are more agile and effective, thus enhancing the competitive advantage of organizations.

CREATIVITY IN INFORMATION SYSTEMS PLANNING

The role of Information Systems Planning has become crucial for the development of effective strategic plans in organizations (Lederer, 1991) and (Chen, 2010). The increasing uncertainty in the markets has encouraged organizations to be more proactive. On the one hand, information technology provides a set of opportunities for gaining competitive advantage. This requires strategic alignment and a fit of Information Systems with the strategies, goals and operations of organizations. On the other hand, organizations acknowledge that the ability to provide a quick response to unforeseeable events is paramount for their survival (Alleire, 1989).

Although the importance of creativity in Information Systems Planning is recognized and even a key component in the main ISP approaches – such as the three-stage model of Bowman (1983) and the multi-dimensional approach of Earl (1989) research in this area has been scarce.

In another respect, Ruohonen & Higgins analyzed the potential of activity theory in ISP (Ruohonen, 1998). Their analysis was divided into three distinct time frames that followed an ISP evolutionary perspective and the relationship of creativity and Information Systems Planning in each time frame was discussed. Horton & Dewar (2001) proposed the use of formalized Alexandrine patterns to encapsulate the creative aspects of strategic Information Systems formation (Horton, 2001). They used a United Kingdom police force as a case study, which allowed them to derive two patterns that show the uses of creative practice in a political micro-organism.

Indeed for the purposes of this paper the relevant theoretical contributions are those that highlight the ISP stages and the embedding of creativity in those stages as a means to ensure that the resulting information system are competitive, responsive and adaptive to environmental changes. As far as the review of creativity and creative techniques is concerned, it is possible to assert that this is a well-defined area that comprises some two hundred different creativity techniques that can be grouped and used in different situations. However, in the study of creativity techniques, there are different proposals for the grouping of the different creativity techniques. In this article we adopt the classification proposed by Zusman (1988), shown in Figure 1. This scheme classifies creativity techniques into seven distinct groups, where each one has its own characteristics and a preferential applicability scenario.

Of these techniques that allow for support, stimulation and acceleration of creative production, we selected - for use in different methodological stages - those that presented themselves as more adequate depending upon the different types of problem in each case.

Through cross referencing the two themes of Information Systems and Creative Thinking, we were able to identify relevant areas of inquiry: the generation of ideas mediated by computer, creativity in Information Systems development, support tools for Information Systems creativity and Creativity in Information Systems Planning. The work presented in this chapters focuses on the latter, more specifically on the convergence between ISP activity and creative processes. 17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/creativity-in-the-information-systems-planningprocess/137480

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