Chapter III

A Design Tool for Business Process Design and Representation

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Abstract

In this chapter the focus is on business process design as middle point between requirement elicitation and implementation of a Web information system. We face both the problem of the notation to adopt in order to represent in a simple way the business process and the problem of a formal representation, in a machine-readable format, of the design. We adopt Semantic Web technology to represent process and we explain how this technology has been used to reach our goals.
Introduction

Today, the impact of business processes within companies gains more and more importance and provides tools to the managers, and methodologies useful to understand and manage them are a must. It is important to integrate business processes in the overall information system (IS) architecture with the goal to provide, to the managers, the right flexibility, to avoid the reimplementation of the applications in order to follow the business process changes, and to adapt the existing applications to a different management of the existing business logic. As a consequence the process-oriented management requires both the ability to define processes and the ability to map them in the underlying system taking into consideration the existence of heterogeneous systems.

It is clear that business and information technology (IT) experts must work together to provide the right flexibility to the IS and thus to improve the overall management. The semantic gap between business and IT experts is a problem in the development of an overall system oriented to the improvement of the business process. The first thing to do to solve this problem is to study a common language between these two classes of users with very different requirements:

- Business experts will focus on the processes and on the direct management of them in order to modify the company work without giving many technical details: A change to the process must be immediately translated in a change to the applications that implement it.
- IT experts require more details about processes and require simplicity in order to understand the process flow and thus application requirements.

Business process design is the middle point between requirement elicitation and Web IS implementation that is between business and IT experts. The tool that supports business process design must be the same for both business and IT users and must answer to two different key aspects:

- easy to use with a notation easy to understand and allows to gives all technical details but, at the same time, hiding the complexity to the final user, and
- supports the export of the process design in a formal way in order to give to the IT experts all the process detail that they need. The process description must be machine readable.

In our research work we consider these two aspects by two approaches:
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