Chapter 6
Prosumer's Responsibilities?
On Stage to a Dedicated Framework for Services Sharing and Compliance in the Healthcare Domain

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ABSTRACT

This chapter addresses issues relating the clarification of responsibilities associated to business services. The definition of the constraints is part of the definition of the services. The main objective is to describe the influence of the constraints in the service elaboration mechanisms. The authors propose an approach for the specification of the constraints associated to services and for the management of access rights needed to use and exploit services. The usage of services is strongly coupled with the stakeholder's responsibilities. Finally, the authors discuss a usage scenario implementing this approach in the context of sensitive data exchange between stakeholders from the healthcare domain. Furthermore, they describe how the constraints are defined.

INTRODUCTION

For the last decade, proactive consuming has considerably affected economic models and has positively influenced the development chains of the production of hi-tech material and highly sophisticated products. Although actually roughly considered by the production industry of tangible goods, prosumering has for a long time remained in the shadow of the production of services. On stage to integrate this consuming/producing dimension in the architecture of service science frameworks, our work intends to enrich the forthcoming theory related to the service sharing along two dimensions: the responsibility of the prosumers and the needs for compliance with legal framework and

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organizational constraints. The services compliance aims to improve the quality of services to be offered to the stakeholders and users concerned by these services.

By definition, a prosumer is made performing a larger set of activities related to the service, whether it is in service definition or in service exploitation. Those activities are defined by a set of obligations assigned to the prosumer, for which a certain commitment is expected, and for which capacity are required. In the field of service, differently as in the field of tangible good, the prosumer is more often hired in an institution or in a company and, thereby is often more solicited to give account to an authority regarding the achievement of its obligations.

For example, in the field of healthcare, service consuming is of flashy color since having access to services is sometimes crucial for the life of the patient. Therefore, healthcare employees are often on a food war to manage their access to the service, to enhance the service performance and to take the service expected output as far as it is needed to the extent of their work.

The management of the access to patient files in the healthcare sector is of huge importance since the manipulated data concern very sensitive and confidential personal information. In Luxembourg, this personal data protection has been legitimated by the national law of August the 2nd, 2002. All actors working in the healthcare field have the legal constraints to conform to this law.

In our previous research we launched works about the analysis of the service compliance and about the definition of integrated IS architectures in order to support the service compliance analysis (Khadraoui 2012; Feltus, 2009, 2012). In Khadraoui (2012), we proposed a novel approach which permits to establish a strong link between the organizational layer and the informational layer of a service, and to clarify the responsibility dimension in order to guarantee the compliance of services.

In this chapter, we consolidate the proposed approach and we address a specific challenge concerning the definition of the constraints and the definition of the responsibility aspects of the stakeholders and users involved in services in the perspective to establish compliance between services and the domain constraints.

The rest of the chapter is organized as follows: in section 2 we describe how the responsibility is modelled. In section 3 we present the dynamic constraint model and we discuss generic types of constraints as depicted in the literature. In section 4 we illustrate our proposed approach for the specification of the constraints associated to services and for the management of access rights needed to use and exploit services by prosumers. Section 5 describes a simplified usage scenario illustrating the proposed approach. Finally, in section 6 we conclude and present future perspectives of this work.

MODELING RESPONSIBILITY

The elaboration of the responsibility meta-model (Figure 1) has been performed based on a literature overview. As explained in previous papers (Feltus, 2009; Petit, 2012) we have, in the first place, analyzed how responsibility is included in information technology professional frameworks, in the field of requirements engineering and role engineering, and in the field of access right with the review of access control models. Afterwards, this literature overview has been completed by a literature review in the field of Human Sciences (psychology, sociology, and management).

In Figure 1, the most meaningful concepts are defined in the following way:

- The responsibility is a charge assigned to an employee to signify his accountabilities concerning a business task, and the right and capacity required to perform those accountabilities.