

## **VALUE OBJECT CLASSIFICATION FOR HEALTHCARE SERVICE DEVELOPMENT**

**T.D.G. Geethika<sup>1\*</sup>, D.W.C.P. Kumari<sup>1</sup> and P. Jayaweera<sup>2</sup>**

<sup>1</sup>*Department of Computer Science, Faculty of Science,  
University of Ruhuna, Sri Lanka*

<sup>2</sup>*Department of Computer Science, Faculty of Applied Sciences,  
University of Sri Jayewardenepura, Sri Lanka*

*\*gilmini@dcs.ruh.ac.lk*

E-Service provided by enterprises are to improve performance of entire business according to their goals. In present day, service oriented enterprise applications are founded on e-Services for inter and intra cooperation of enterprise systems. Such e-Service identification, designing and development are tedious and time consuming task besides its criticality. In order to overcome these deficiencies, utilization of business value models to get initial institution of e-Services is important and fundamental. Among existing business value modeling approaches, e<sup>3</sup>-Value modeling take over the advantage of describing exchange of values among actors in a networked e-Business atmosphere. Further this e<sup>3</sup>-Value modeling approach illustrates the overview of business plan in terms of value actors, value objects and value activities.

In this research work we propose a classification that supports the creation of value object types focusing e<sup>3</sup>-Value modeling. Presented taxonomy supports e<sup>3</sup>-Value modeling by facilitating identification of related value actors and value activities in business collaborations with particular focus on healthcare industry. Further it also leads to assist in analyzing the composition of the components in e<sup>3</sup>-Value model. A case study of healthcare domain is used to ground and apply the proposed approach that could reduce complexity of enterprise solution development for networked business since it supports early identification of services. Thus the attempt of the study is to figure a classification that is capable enough to provide clear and precise understanding of services to be developed and deployed by e-Service designers in healthcare industry. Our study classifies the value objects in to Intrinsic Value Objects (IVO), Recurrent Value Objects (RVO), Co-created Value Objects (CVO) and Affirmative Value Objects (AVO). This work supports requirement engineering in the way of identifying objects with security requirements, reusability, co-creation and proper authentication. The adoption and utilization of the classification could be applied in different specializations and various application areas even within the health industry as well as trying out this in other possible domains. Further we wish to propose a complete framework that combines this classification with service rules in a specific domain to address major issues in analyzing service rules that directly influence the process modeling of the organization.