

Process aligned business rule framework for immunization services in Sri Lanka

Gilmini Dantanarayana
Department of Computer
Science
Faculty of Science
University of Ruhuna
Sri Lanka
gilmini@dcs.ruh.ac.lk

Prasad Jayaweera
Department of Computer
Science
Faculty of Science
University of Sri
Jayawardenepura
Sri Lanka
pja@sjp.ac.lk

Anusha Walisadeera
Department of Computer
Science
Faculty of Science
University of Ruhuna
Sri Lanka
waindika@dcs.ruh.ac.lk

Abstract

Identification of healthcare (HC) service processes is a key requirement of successful e-Health system engineering. Ensuring compliance of the HC service process with medical knowledge and guidelines integrated from various written documents and expertise knowledge is a fundamental challenge to e-solution development. Current e-Health solutions often rely on technical level communication and there is no systematic methodology to derive these low level requirements from higher level knowledge base and guidelines. Thus, it is necessary to design a systematic approach to fill the gap between higher level service policies and expertise knowledge with lower level service processes. Therefore, the proposed framework could be considered as a bridge, facilitating e-Health solution for developers to systematically realize high level requirements on underlying technologies. Formalizing care pathway is a promising approach to meet this requirement. However, currently the formalizing care pathway is incomplete due to the complexity in HC domain. The methods also used to implement electronic clinical pathways in other countries are difficult to adopt in Sri Lankan context. This study is an initiative contributing to designing a framework of formalizing a clinical pathway with three main consecutive layers for higher level policy driven service process designing.

Keywords: e-Health solutions, HC service process, service policies