Insight Medical Publishing

Health Systems and Policy Research

2020

ISSN 2254-9137

Vol.7 No.5

Software adaptaion in healthcare systems

Hamid Mcheick,

University of Québec at Chicoutimi, Canada

Abstract

The separation of concerns as a conceptual paradigm aims to manage the complexity of the software systems by dividing them into different concerns and aspects. The benefits of this paradigm such as adaptability, reusability and maintenance, have been key drivers of its adoption and usability, particularly in healthcare systems. Developing a system with adaptive, flexible and maintainable architecture requires modularity because we must be able to design a flexible system that allows us to make decisions based on context of patients. In the emerging architectures such as Cloud computing, Fog Computing, Mobile Edge Computing and Internet of Things, the fundamental characteristic of the applications is their ability to adapt or to react according to the information of the context. In this talk, I will describe briefly three adaptation approaches, such as static (Aspect-oriented Programming), composition (OSGi) and parameters (MAPE). Then, I will illustrate these approaches to support adaptability of an COPD deseases. In addition, I will give an overview of our context-aware healthcare systems.

Biography:

Dr. Hamid Mcheick is a full professor in Computer Science department at the University of Québec at Chicoutimi, Canada. He has more than 20 years of experience in both academic and industrial area. He has done his PhD in Software Engineering and Distributed System in the University of Montreal, Canada. He is working on design and adaptation of distributed and smart software applications. He has supervised many post-doctorate, PhD, master and bachelor students. He has nine book chapters, more than 50 research papers in international journals and more than 130 research papers in international/national conference and workshop proceedings in his credit. Dr. Mcheick has given many keynote speeches and tutorials in his research area, particularly in Healthcare systems, Pervasive and Ubiquitous computing, Distributed Middleware Architectures, Software Connectors, Service Oriented Computing, Internet of Things (IoT), Mobile Edge Computing, Fog Computing, and Cloud Computing. Dr. Mcheick has gotten many grants from governments, industrials and academics. He is a chief in editor, chair, co-chair, reviewer, member in many organizations (such as IEEE, ACM, Springer, Elsevier, Inderscience) around the world.

Speaker Publications:

1."Another nail to the coffin of faceted controlled-vocabulary component classification and retrieval"; Volume 22, Issue 3.
2. "Modeling and Simulation Agent-based of Natural Disaster Complex Systems"; Volume 21, 2013, Pages 148-155
3."Cloud Services Testing: An Understanding"; Volume 5, 2011, Pages 513-520
4. "An experiment in software component retrieval."; Volume 45, Issue 10, 15 July 2003, Pages 633-649
5. "Modeling Context Aware Features for Pervasive Computing Volume 37, 2014, Pages 135-142
6. "Toward an Access Control Model for IOTCollab"; Volume 52, 2015, Pages 428-435

e-Health and Alternative Healthcare Innovations; Webinar, October 12-13, 2020.

Abstract Citation:

Hamid Mcheick, Software adaptaion in healthcare systems. E-Health 2020, e-Health and Alternative Healthcare Innovations; Webinar, October 12-13, 2020.

(https://ehealth.healthconferences.org/abstract/2020/software-adaptaion-in-healthcare-systems)