On Representation and Usage of Requirements in Self-* Systems

Csaba Szabó, Veronika Szabóová

Department of Computers and Informatics
Faculty of Electrical Engineering and Informatics
Technical University of Košice, Slovakia

Csaba.Szabo@tuke.sk, Veronika.Szaboova@tuke.sk

There is much more emphasis on architecture than on knowledge representation in self-* system development. We think that there should be more attention given to knowledge selection and representation, because self-adaption or self-healing cannot be implemented without a knowledge about the requirements and architecture of the system. We focus this paper on requirement knowledge representation and usage in self-* systems. Our goal is to present an approach, which takes different software development methods into consideration. Using them, we find the proper form of requirement representation. We also show related methods of knowledge extraction from the selected requirement representation – which are user stories. Finally, for the presented representation, we outline our usage model prototype, which is also used to show further research and development directions by selecting its strong and weak components.