CreaRE 2019 Keynote: Digitalization and AI Bring the Work Back to the Roots — Towards an RE 4.0

Dr. Kerstin Röse
Siemens Department of Corporate Technology
Erlangen, Germany

1 Summary

In order to be able to meet the requirements imposed by the digitalization that is central in Industry 4.0 and Work 4.0, to achieve an active, modern, and contemporary design of technology, we need to redefine Requirements Engineering (RE) methods and approaches for what we would call "RE 4.0". We cannot achieve this new RE by continuing the current focus on better adaptation of technically necessary inputs. Rather, our work should address the WHAT and HOW of RE, along with the WHEN, WITH WHAT, and FOR WHAT of User Experience (UX) Engineering, as well as the WHY and WHAT FOR of Design Thinking (DT).

Coming from this background, we have set up an approach that steers us away from technology-driven definition of requirements and towards deliberate design of modern technological solutions, which support both Human–Machine Interaction directly through augmented offerings, and the user as an actor with his actions and planning. To this end, UX is emphasized to support the development of needs-based solutions.

This keynote presents an approach that involves the interaction of classical RE approaches and UX approaches in combination with DT. It addresses opportunities and challenges regarding the interaction of the elements of RE–UX–DT, and discusses the practical experiences and results.

2 Biography

1990–1996: Master's Degree in Psychology in the domain of Cognitive Ergonomics

1996–2002: PhD in Mechanical Engineering in the domain of System Design and Modeling

1996–2002: Chief Engineer, Managing Director Center for Human–Machine Interaction (ZMMI) Kaiserslautern,

2002–2011: Assistant Professor of User-Centered Product Development, Technical University Kaiserslautern, Department of Mechanical and Process Engineering

2007–2011: Founding and Academic Director of the Usability Academy

2011–today: Siemens, Corporate Technology, as Senior Key Expert for User-Driven PLM Development

In: A. Editor, B. Coeditor (eds.): Proceedings of the XYZ Workshop, Location, Country, DD-MMM-YYYY, published at http://ceur-ws.org