

Preface: Eleventh International Workshop on Creativity in Requirements Engineering (CreaRE 2024)

Maya Daneva^{1,*†}, Andrea Herrmann^{2,*†}, Kurt Schneider^{3,*†} and Patrick Mennig^{4,*†}

¹ University of Twente, Enschede, the Netherlands

² FernUniversität Hagen, Germany

³ Leibniz Universität Hannover, Germany

⁴ Fraunhofer IESE, Kaiserslautern, Germany

1. Workshop Theme and Motivation

Where do great requirements come from? Technological advancements in the form of amazing new software features, disruptive innovations, emerging new fields such as the Internet of Things and smart ecosystems, and radical enhancements to existing software all rely on one thing: innovative ideas that reinvent the work context, work processes or experience, and in turn lead to types of user experience that were unthinkable before. However, in this context of abundance of disruptive technology, established requirements elicitation techniques – such as those typically found in Requirements Engineering (RE) textbooks – help identify only partly the requirements that an IT system should fulfill, or focus primarily on the incremental improvement of a system, all with little innovation potential. Many of the most used elicitation techniques have not been designed to serve the goal of innovative idea generation.

Creativity is needed to identify delighter requirements, which make aspects of the new system a real positive surprise. Methods such as Design Thinking employ creativity to develop new innovative products and innovate improvements on existing products. With the progress of Artificial Intelligence (AI), innovative ways of the team of AI and humans can create new ideas jointly. The CreaRE workshop provides the platform for introducing, discussing and elaborating on ways to be creative for RE.

Many practical questions are still open, in particular concerning the applicability and reliability of these techniques in different contexts as well as the completeness of the requirements resulting from a creative process.

In: D. Mendez, A. Moreira, J. Horkoff, T. Weyer, M. Daneva, M. Unterkalmsteiner, S. Bühne, J. Hehn, B. Penzenstadler, N. Condori-Fernández, O. Dieste, R. Guizzardi, K. M. Habibullah, A. Perini, A. Susi, S. Abualhaija, C. Arora, D. Dell'Anna, A. Ferrari, S. Ghanavati, F. Dalpiaz, J. Steghöfer, A. Rachmann, J. Gulden, A. Müller, M. Beck, D. Birkmeier, A. Herrmann, P. Mennig, K. Schneider: Joint Proceedings of REFSQ-2024 Workshops, Doctoral Symposium, Posters and Tools Track, and Education and Training Track. Co-located with REFSQ 2024. Winterthur, Switzerland, April 8, 2024.

* Corresponding author.

† These authors contributed equally.

✉ m.daneva@utwente.nl (M. Daneva); AndreaHerrmann3@gmx.de (A. Herrmann); kurt.schneider@inf.uni-hannover.de (K. Schneider); patrick.mennig@iese.fraunhofer.de (P. Mennig)



© 2023 Copyright for this paper by its authors. Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0).

2. Goals of the Workshop

The purpose of the CreaRE workshop is to provide a forum for the exchange of ideas, experiences and research results concerning creativity in RE. The workshop is designed to foster active learning. First, the participants will learn from the speakers and from each other, as the workshop is discussion-driven. Second, the participants will gain hands-on experiences in applying creativity techniques themselves during the workshop.

3. Workshop Topics

As the CreaRE workshop brings together the concepts of creativity and requirements, its topics include, but are not restricted to:

- The cooperation of human users and Artificial Intelligence in being creative in RE
- Analyzing how distributed online collaboration has advanced creativity in doing RE, for example through changes in our communication, collaboration, co-creation, and tool use
- The application of known, new or adapted creativity techniques in RE activities
- Creative use of techniques originally designed for other purposes, but now applied as RE techniques, and/or creativity enhancers, especially for requirements elicitation
- Promoting stakeholder participation in RE activities through creativity techniques
- Using the creativity of the crowd
- Gamification and creativity for RE
- Using creativity techniques to measure and enhance user experience
- Tool support for creativity enhancement
- Context dependency of creativity and creativity techniques
- Experiences with and considerations about creativity techniques in RE in industry
- RE techniques that enable or support creativity

4. Program

The CreaRE 2024 program features a keynote talk, four research papers and three interactive sessions:

- Neil Maiden, Bayes Business School: “Co-Creative AI tools for professional workers – exploring applications for software and requirements engineering” (keynote and interactive session)
- Alexander Rachmann, CBS International Business School: “Six Thinking Chatbots: A Creativity Technique deployed via a Large Language Model” (paper presentation)
- Jill-Valerie Tamanini and Jasmin Gorlt, Fraunhofer IESE: “Towards a Card Game for Creative Solution Ideas: InnoCards” (paper presentation)
- Hannah Deters, Jakob Droste and Kurt Schneider, Leibniz University Hannover: “On the Pulse of Requirements Elicitation: Physiological Triggers and Explainability Needs” (paper presentation)

- Sven Storck, Nedo Bartels, Simon André Scherr, Stefanie Ludborzs and Emely Janke, Fraunhofer IESE: “Cartoneering – A Collaborative Workshop Approach to Develop Scenarios with Users” (paper presentation)
- Alexander Rachmann, CBS International Business School: “Six Thinking Chatbots – Experiment Session” (interactive session)
- Jill-Valerie Tamanini and Jasmin Gorlt, Fraunhofer IESE: “Applying and Validating a New Creativity Method: CityInnoCards” (interactive session)

Interested readers are invited to visit the workshop’s website: <https://create.iese.de/>.

5. Program Committee

Our sincere gratitude goes out to the members of our program committee:

- Sebastian Adam, OSSENO Software GmbH, Germany
- Raian Ali, Hamad Bin Khalifa University, Qatar
- Carina Alves, Universidade Federal de Pernambuco, Brazil
- Dan Berry, University of Waterloo, Canada
- Fabiano Dalpiaz, University of Utrecht, The Netherlands
- Rodrigo Falcao, Fraunhofer IESE, Germany
- Meira Levy, Shenkar College of Engineering, Design, and Art, Israel
- Daniel Méndez, BTH | Blekinge Institute of Technology, Sweden
- Luisa Mich, University of Trento, Italy
- Richard Berntsson Svensson, Chalmers University of Technology, Sweden