

Preface

This volume contains selected research papers and descriptions of prototypes and products presented at DESRIST 2017 – the 12th International Conference on Design Science Research in Information Systems and Technology – held from May 30 to June 1, 2017, at Karlsruhe, Germany.

This year's DESRIST conference continues the tradition of advancing and broadening design research within the information systems discipline. DESRIST brings together researchers and practitioners engaged in all aspects of Design Science research (DSR), with a special emphasis on nurturing the symbiotic relationship between Design Science researchers and practitioners. As in previous years, scholars and design practitioners from various areas, such as information systems, business and operations research, computer science, and industrial design came together to discuss both challenges and opportunities of Design Science and to solve design problems through the innovative use of information technology and applications. The outputs of DESRIST, new and innovative constructs, models, methods, processes, and systems, provide the basis for novel solutions to design problems in many fields. The conference further built on the foundation of 11 prior highly successful international conferences held in Claremont, Pasadena, Atlanta, Philadelphia, St. Gallen, Milwaukee, Las Vegas, Helsinki, Miami, Dublin, and St. Johns.

The 12th DESRIST conference had the theme of “Designing the Digital Transformation” and emphasized the contemporary challenge of transforming businesses and society using information technologies. The rapid digital transformation of businesses and society creates new challenges and opportunities for information systems (IS) research with a strong focus on design, which relates to manifold application areas of IS research. This year's DESRIST, therefore, introduced selected themes in order to account for and further stimulate DSR in such areas. Specifically, DESRIST featured seven themes: DSR in business process management, DSR in human–computer interaction, DSR in data science and business analytics, DSR in service science, methodological contributions, domain-specific DSR applications, and emerging themes and new ideas. In total, we received 135 submissions (66 full research papers, 19 prototypes and products, and 50 research-in-progress papers) to the conference for review. Each research paper was reviewed by a minimum of two referees. This Springer volume contains 25 full research papers, with an acceptance rate of 38%, along with 11 short papers describing prototypes and products. Research-in-progress papers are published in separate proceedings.

We would like to thank all authors who submitted their papers to DESRIST 2017. We trust that the readers will find them as interesting and informative as we did. We would like to thank all members of the Program Committee as well as the many additional reviewers who took the time to provide detailed and constructive critiques for the authors. We are grateful for the support of many colleagues who took responsibility in chair positions – such as the doctoral consortium chairs, the industry

track chairs, the product and prototype chairs, and the local arrangements chairs – as well as for the great dedication of the many volunteers, whose efforts were instrumental in bringing about another successful DESRIST conference. Our special thanks go to Dr. Stefan Morana, who managed the operational review and publication process in his role as proceedings chair. Furthermore, we thank the Karlsruhe Institute of Technology (KIT) and the sponsoring organizations, in particular SAP, Bosch, IBM, Senacor, as well as the Cyberforum/Digital Innovation Center, for their support. We believe the papers in these proceedings provide many interesting and valuable insights into the theory and practice of DSR. They open up new and exciting possibilities for future research in the discipline.

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