Introduction to the Advances in Design Science Research Minitrack

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This minitrack purpose is to provide a venue for design science researchers (DSR) to share their work and interact with likeminded scholars. DSR is a prominent form of engaged scholarship, which combines inquiry with a potential for action and intervention. DSR may be viewed as having three related subfields:

- Science of design, which focuses on creating 'new-to-the-world' artifacts [1-3] has a welcoming outlet. We try to provide such an outlet for researchers doing artifact driven research in information systems, but also in other fields such as industrial engineering or service design.
- Design theory research, which focuses on the development of theories about creating new or improved systems based on kernel or grand theories. The design theory concept was first articulated two decades ago [4, 5] and continues to be developed [6].
- Design Research, which focuses on the study of how designers actually conduct design activities, e.g., science of design research. Papers in this subfield could potentially come not only from IS, but also from architecture and design.

All three subfields are often (but not always) tightly engaged with design practice. Accordingly, they frequently embody participative forms of research that rest on the advice and perspectives of multiple stakeholders in understanding a complex social problem.

While specific interest is placed upon DSR and design theorizing with respect to the three subfields described above. Such work extends the boundaries of human and organizational capabilities by theorizing and/or creating new and innovative artifacts. The building and application of these designed artifacts produces knowledge and understanding of a problem domain and its solutions, which is then potentially transferable to other domains. In DSR, the engagement is primarily focused on the design and evaluation of an artifact; learning through building with the aim to generate theoretical insights. This is often an iterative research process, often quite technical, and sometimes capitalizes on learning via both researcher and subject expertise within the context of the participants' social system. It can be a clinical method that puts researchers in an active supporting role for advanced practice. To this end we also seek implementable and grounded action frames for engaging in such generalizable inquiries. Accordingly, the scope of our minitrack includes research contributions that arise from all three subfields of DSR.

The papers included in this year's minitrack cover the topics of how to portray design essence in order to accumulate and reuse DSR knowledge, to design for self-reporting affective experiences, to include humanoid robots into experimental research, to design for a cure for a psychosis, and to understand the connection between living labs and action design research.

References

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