

AIS SIGPrag 2018 pre-ICIS workshop – abstracts

Towards Digimaterial Design

Lars Bækgaard and John Mathiasen

We present and discuss four focus points for the design of digimaterial artifacts, i.e., artifacts that combine digital and material aspects. Cars, cameras, ERP systems, and robots are examples of digimaterial artifacts. The four focus points are structures, symbols, actions, and plasticity. The structures of digimaterial artifacts are constituted by connected digital and material components. Digimaterial artifacts can store and process symbolic representations of information. Digimaterial artifacts can perform four types of actions: Move, control, modify, and sense. Digimaterial artifacts are plastic in the sense that their capabilities can be modified by changing their digital aspects. We relate the characteristics of the four focus points to associated affordances.

Tuning professionalism in the public sector

Helena Vallo Hult, Anna Sigridur Islind, and Livia Norström

The digitalization in the public sector poses challenges for the professionals that have previously not been using digital tools as a part of their everyday practice. Building on three qualitative research projects this study shed light on contradictions and tussles, as well as possibilities related to professionalism in the public sector. The three cases involve different professionals: cancer rehabilitation nurses, municipality communicators, and resident physicians. The paper aims to gain a better understanding of the impact of digitalization efforts on everyday work practices, and the emerging opportunities and challenges of using digital artifacts as a part of professional work. Our findings show how the transition toward digital work practices is pushing the professional boundaries of rooted professionalism in the public sector. The meaning of work and what it means to be a professional profoundly changes. The process of tuning professionalism in the public sector is not straightforward.

A Pragmatic Approach for Identifying and Managing Design Science Research Goals and Evaluation Criteria

Alan Hevner, Nicolas Prat, Isabelle Comyn-Wattiau, and Jacky Akoka

The effectiveness of a Design Science Research (DSR) project is judged both by the fitness of the designed artifact as a solution in the application environment and by the level of new research contributions. An important and understudied challenge is how to translate DSR project research goals into discrete and measurable evaluation criteria for use in the DSR processes. This position paper proposes an inclusive approach for articulating DSR goals and then identifying project evaluation criteria for these goals. The goals are organized hierarchically as utilitarian goals, safety goals, interaction and communication goals, cognitive and aesthetic goals, innovation goals, and evolution goals. Goals in a DSR project are identified pragmatically by considering the components of the context coupled with the hierarchy of goals. Based on the identified goals, the associated evaluation criteria are determined and organized along the same hierarchy. These criteria measure the ability of the artifact to meet its goals in its context

(immediate fitness). Moreover, our approach also supports the innovation and research contributions of the project. The apex of the goal hierarchy addresses the identification of criteria measuring the fitness for evolution of the designed artifact, to accommodate for changes in goals or context.

Kernel Philosophy: A Way of Inspiring and Making Sense of Design in Information Systems Research?

Amir Haj-Bolouri

This research in progress introduces the concept of kernel philosophy to advance prior discussions concerning design, meta-design, the underlying rationale of design, and the assumptions and values of which a design rationale rests upon. Consequently, the present research proposes philosophy as a kernel that ingrains the assumptions and values of a design rationale, and how an active use of kernel philosophy may establish a reflective attitude towards design in information systems research, through two main features (1) sense-making of design/meta-design and (2) inspiring the design/meta-design process. Finally, the paper provides a brief demonstration of kernel philosophy in use and ends with a brief discussion concerning limitations and future research.

Encouraging Sustainable Transport Through an M-service – Investigating Citizens' Preferences Using Personas

Carl-Mikael Lönn, Gustaf Juell-Skielse, and Anders Hjalmarsson

Lately, mobile services have been developed to reduce the use of conventionally fueled vehicles in cities by fundamentally changing the mobility behavior of their drivers and users. Based on incentive schemes, using information, points and discounts, these m-services are designed to meet the requirements of all citizens. However, citizens cannot be regarded as a homogeneous user group and user centric design approaches must consider both similarities and differences in citizens' preferences. There is a gap in the understanding of user preferences in current literature on m-service designs for sustainable transport. To reduce this gap in knowledge, we present a content analysis of 20 in-depth interviews and develop personas to create a better understanding of both commonalities and differences between citizens. We conclude that personas complement content analysis by providing coherent portraits encapsulating and representing individual citizens' preferences. Based on this information, better informed, value aware and ethical design decisions can be made. Furthermore, informed decisions of what values will be promoted and what citizens' groups that will be targeted and which citizens that will not be included (designed for) can be made. Future research should investigate further how design objectives and requirements can be inferred from personas.

Introducing Context Engineering to Proof of Concept Practices

Antonio Jose Rodrigues Neto, Licinio Roque, and Maria Manuel Borges

A Proof of Concept can be described as a research practice for knowledge construction based on a theoretical-practical foundation with the aim to explore, increase, and promote knowledge of the artifacts under research to organizations or communities of practice. In a literature review, we identified that there is a lack of studies on, and gaps in the knowledge of, Proof of Concept practices and their characterization. The

misunderstanding of these practices may intensify the probability of compromising the reliability, reproducibility, and reusability of knowledge in a Proof of Concept, which may affect its proper utilization by their practitioners, possibly contributing to a domino effect. In Information Systems, we can define a Proof of Concept as a system that produces socio-technical phenomena. The Context Engineering proposal helps us to use a different approach based on a set of essential movements in a new form of Information Systems development and a discussion of the relevance of context as a fundamental theme in Proof of Concept practices. Furthermore, we emphasize Information Science, which allows us to study in formal and rigorous ways the processes, techniques, conditions, and effects that are entailed in improving the efficacy of information, essential in these practices.

Tapping into the Wealth of Employees' Ideas : Design Principles for a Digital Intrapreneurship Platform

Victoria Reibenspiess, Katharina Drechsler, Andreas Eckhardt, and Heinz-Theo Wagner

The digital transformation provides organizations with the unique opportunity to involve in-trapreneurs, i.e., employees sharing the zeal of entrepreneurs but innovating within the organizations' boundaries through the generation of new ideas and correspondingly the creation of innovations. Although, organizations have become increasingly interested in exploiting the innovation potential of their employees, tools such as digital intrapreneurship platforms guiding and hosting this process are still limited and their design faces a number of challenges, which have not been addressed by Information Systems research, yet. Thus, research on digital intrapreneurship platform design contributes both to design science, intrapreneurship as well as IS research and organizations' innovation capability. With this work, we provide the results of an action design research project with an IT service provider and describe the iterative design process of the digital intrapreneurship platform. The developed artifact is ingrained in socio-technical systems theory. The evaluation of the project derives generalizable design principles in form of design knowledge that could guide organizations in developing a viable digital intrapreneurship platform in order to create tools facilitating intrapreneurial behaviour.