

Human-centered Design for Digital Innovations

Falk Uebernickel Hasso Plattner
Institute University of Potsdam
falk.uebernickel@hpi.de

Manuel Wiesche
TU Dortmund
manuel.wiesche@tu-dortmund.de

Daniel Mendez
Blekinge Tekniska Högskola
daniel.mendez@bth.se

Matthias Söllner University of
Kassel soellner@uni-kassel.de

1. Motivation

Digital products and services are progressing in their importance for our nowadays economy [1]. Almost every industry seems to be impacted by this ongoing trend. As [1] state: "... across the business landscape large companies have embraced service as an engine of their firms' growth.". Furthermore, through an intensified digitization of businesses, new and digital enable innovations are possible.

Besides technological considerations, the alignment of human needs is of high relevance for such new digital products and services [2] especially for the success and sustainable use of digital innovations and related software systems [3].

2. Human-centered Design for Digital Innovations

As part of this mini-track, we tried to understand how and in what way the discipline of human-centered design can contribute to narrow the gap between the design of information systems and the alignment with human needs. In this particular context, we were trying to focus specifically on customers and users of such systems.

In total, the track has received 10 articles where 4 were selected to be part of the conference. Authors handed in a wide range of contributions like maturity models for human-centered service innovation, topics around artificial intelligence and human-centered

design as well as a paper that tried to link design thinking with the development of software. The final candidates of that mini track reflect a good overview of potential further research directions. The first paper is providing a comprehensive overview of Persona creation techniques in the field of digital innovations. The second paper puts more light on the importance and role of employees in the creation of digital innovations. Through a systematic analysis, the authors are able to show the first directions for organizations. The third paper is addressing the application of design thinking as part of Digital Innovation Units and how to measure the success of it. The last accepted paper is of its nature a design science approach and elaborates on user archetypes and related requirements for health-related applications in the context of Kenya.

- [1] Barrett, Michael, Elizabeth Davidson, Jaideep Prabhu, and Stephen L. Vargo. 2015. "Service Innovation in the Digital Age: Key Contributions and Future Directions." *MIS Quarterly* 39 (1): 135–54.
- [2] Brenner, W., D. Karagiannis, L. Kolbe, and J. Krüger. 2014. "User, Use & Utility Research." *Business & Information*.
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- [3] Hehn, J., D. Mendez, F. Uebernickel, W. Brenner, and M. Broy. 2020. "On Integrating Design Thinking for Human-Centered Requirements Engineering." *IEEE Software* 37 (2): 25–31.