Jahresbericht 2020

Fachgebiet „Design Thinking and Innovation Research“

Prof. Dr. Falk Uebernickel
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Introduction

Dear Ladies and Gentlemen,

2020 was an exceptional year, not only because all of us needed to learn how to deal with a global pandemic in our daily activities, but it required us to be innovative in finding new ways to collaborate online and conduct our research and teaching activities in the so-called - new normal. While the global pandemic has for sure required substantial changes in the first year as a Professor for Design Thinking and Innovation Research at the Hasso Plattner Institute (HPI), it has been a great start for which my entire team is grateful. Together as a team, we managed to run three master courses at HPI, including the handover of our flagship program Global Team-Based Innovation (GTI). Across all classes, we met curious students, open to new ideas and concepts with whom we could learn and discuss our chair's topics. Luckily, in the context of the course GTI, even one Start-up - Visense - emerged from a project between students from the University of St Gallen (HSG) and Hasso Plattner Institute (HPI). The example gives precedent into how collaboration across disciplines, as well as hard work and dedication of our students and the supporting teaching team, give birth to entrepreneurial success. This example shall be a role model for our understanding of teaching.

In terms of research, our small team managed to participate in the Hasso Plattner Design Thinking Research Program. As part of this, we have investigated, for example, how Digital Innovation Units in firms measure their performance. Beyond this, the chair conducted a Massive Open Online Course on Mastering Design Thinking in Organizations, and data was gathered for the second edition of the Parts without a Whole Study on the Use of Design Thinking. In total, the team managed to publish twelve contributions in the format of book chapters, conference papers, journals and books.

Are you curious about what else we were up to? This annual report will provide you with insights into our activities in 2020. Furthermore, we also want to give you a glimpse of what you can expect from us this year!

All in all, I look forward to an insightful and fruitful collaboration, and I hope you enjoy the reading of this report!

Warm regards, Prof. Dr. Falk Uebernickel and team,

Chair for Design Thinking and Innovation Research
Mission

Climate change and digitization are probably the two most essential megatrends that humanity has to cope with in the 21st century. However, as liberal societies, one approach to master these challenges is the human mind's creativity resulting in game-changing innovations. It’s the ideas of individuals that have helped us to cope with changing environments for a long time. Also, it is necessary to embrace the power of innovations in different dimensions and areas in today's world. However, addressing the mega challenges in front of us also needs a new way to think about innovation. Beyond addressing technical or financial issues, we need a more inclusive, holistic and sustainable, human-centered concept of innovation. Thus, a key question that is guiding our research and teaching activities is:

“How can we incorporate customer-centricity and human-centered design in daily work routines of organizations for the purpose of creating meaningful, sustainable, and desirable software-related services, products, and processes?”

Like the Hasso Plattner Institute has committed itself to the UN's Sustainable Development Goals (SDG), our chair understands our research especially contributing to SDG 3. Thus, we aim to foster human-centered innovation in our society.

Solving the riddle of innovation requires knowledge from different perspectives. Thereby we deploy an inter- and transdisciplinary approach in our way of working. This approach towards knowledge creation shall also be the aim internally. We strive to cross bridges between software engineering, computer science, and application fields here at Hasso Plattner Institute. As a starting point, we want to increase the value of IT by deploying human-centered methodologies in the areas of Digital Health and Cybersecurity by different projects.

Thus, we collaborate with partners from other Universities and private companies to solve our time's urgent issues for the next generation. Enabling young and talented minds in research and teaching is our mandate as part of an academic institution.

The Chair for Design Thinking and Innovation Research (DTIR)
Team

The team of the Chair for Design Thinking and Innovation Research works closely together towards the shared vision. To do so requires knowledge from different disciplines. Thus, our team members with backgrounds in Information Science, Computer Science, Psychology, Management, and Digital Health share the ability to work in an international and interdisciplinary environment. Building on the values of trust and collaboration, they aim to create an environment that facilitates learning and research.

<p>| Position                                | Name                        | Background                                           | Status         |
|-----------------------------------------|                            |                                                     |                |
| Chair for Design Thinking &amp; Innovation  | Prof. Dr. Falk Uebernickel | Business Administration and Information Science     | HPI            |
| Research                               |                             |                                                     |                |
| Chair Assistant                        | Anne Klonower               | Business Administration                             | HPI            |
| Postdoctoral Researcher                | Dr. Danielly de Paula       | Computer Science                                    | HPI            |
|                                        | Dr. Daniel Hardegger        | History                                              | Visiting Scholar|
| Ph.D. candidates                      | Carolin Marx                | Business Psychology, Strategic Management            | HPI            |
|                                        | Thomas Haskamp              | Innovation Management                               | HPI            |
|                                        | Selina Mayer                | Psychology                                           | HPI Academy    |</p>
<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Specialty</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair for Design Thinking and Innovation</td>
<td>Stefanie Gerken</td>
<td>Spanish Philology, HR, Entrepreneurship, Consumer Behavior</td>
<td>HPI D-School</td>
</tr>
<tr>
<td>Research Associates</td>
<td>Annalena Lorson</td>
<td>Management</td>
<td>E-School</td>
</tr>
<tr>
<td>Affiliated Members of the Chair</td>
<td>Maia Kuhnen</td>
<td>Psychology</td>
<td>SUGAR</td>
</tr>
<tr>
<td>Research Associates</td>
<td>Roman Reinert</td>
<td>Human Factors</td>
<td>HPI</td>
</tr>
<tr>
<td></td>
<td>David Hahn</td>
<td>IT-Systems Engineering</td>
<td>HPI</td>
</tr>
<tr>
<td>Student Assistants</td>
<td>Md. Abdullah</td>
<td>Digital Health</td>
<td>HPI - Digital Health</td>
</tr>
<tr>
<td></td>
<td>Leonard Pabst</td>
<td>IT-Systems Engineering</td>
<td>HPI</td>
</tr>
<tr>
<td></td>
<td>Niharicka Chandra</td>
<td>Digital Health</td>
<td>HPI - Digital Health</td>
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</tbody>
</table>
Lecturing and Teaching Activities

Teaching allows us to discuss our research with passionate students and offers us the chance to inspire the next generation with our topics. Therefore, the chair hosts many different lectures and seminars on different levels.

- Firstly, we provide lectures as part of the Executive Education at the University of St Gallen (HSG).
- Secondly, we offer our Research Seminar Series for those aiming to write their dissertation with us.
- Thirdly, the chair hosts two classes on the master level at HPI, namely, Global Team-Based Innovation I/II and Requirements Engineering for Software Engineers.
- Fourthly, the chairs also supervise bachelor and master thesis from HPI and HSG. Additionally, the chair also delivered an Online Course - Mastering Design Thinking in Organizations.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>HASSO PLATTNER INSTITUTE (HPI) SUMMER TERM</th>
<th>HASSO PLATTNER INSTITUTE (HPI) WINTER TERM</th>
<th>UNIVERSITY OF ST GALLEN (HSG) SUMMER TERM</th>
<th>UNIVERSITY OF ST GALLEN (HSG) WINTER TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE</td>
<td>Workshop on Design Thinking and Business Innovation</td>
<td>Workshop on Design Thinking and Business Innovation</td>
<td>Digital Leadership and Transformation (CAS)</td>
<td>Agile work and human-centered design (CAS)</td>
</tr>
<tr>
<td>PHD</td>
<td>Seminar on Scientific Publishing</td>
<td>Seminar on Scientific Publishing</td>
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<tr>
<td>MASTER</td>
<td>Global Team Based Innovation I</td>
<td>Global Team Based Innovation II</td>
<td>Design Strategie und digitale Geschäftsmodelle</td>
<td></td>
</tr>
<tr>
<td>BACHELOR</td>
<td>Thesis Supervision (PhD, MA, BA)</td>
<td></td>
<td>Thesis Supervision (EMBA, MA, BA)</td>
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<tr>
<td>ALL</td>
<td></td>
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</table>

Teaching Activities - 2020
Executive Education

As part of the Executive Education program of the University of St. Gallen (HSG), Prof. Dr. Falk Uebernickel conducts regular courses on the topics of Digital Transformation and Innovation.

CAS Digital Leadership & Transformation (28.01.2020-29.01.2020)

In addition to digital technologies and business models, a New Work Transformation with the targeted development of Leadership and Work Culture 4.0 is essential. It is precisely these factors, which are often driven separately, that must and will be brought together in our program - with tools, practical cases, our own practical application and success measurement related to the following key elements: New Work & Leadership, Digital Business Modeling & Experience, Agile Working & Speed, New Work & Culture Transformation. In terms of direct transfer, you will apply all techniques directly to your own practical issues. Experienced transfer coaches support the transfer into practice.

CAS Agile work and human-centered design (27.04.2020-01.05.2020)

The implementation of transformation in a sustainably successful organization requires central skills and abilities as well as methodological basics as "tools of the trade". Business engineering has partially adapted these methods from the engineering sciences. As part of this course, participants learn how to actively design and control processes in the company. As the innovation process serves as the fuel of transformation, the generation of new ideas becomes the central element of sustainable business success. Participants learn how they can institutionalize this idea generation process and fuel it with the appropriate creativity through design thinking. As part of this, it is also shown how Design Thinking can be established in the organization.

Ph.D. - Research Seminar Series

The chair hosts the Research Seminar Series (RSS) aimed at students on a Ph.D. level and other researchers. The series aims to support students pursuing their Ph.D./Doctorate by providing an environment that facilitates learning about research methods and designs. The support takes place through high standing contributions, well-prepared presentations, and intense discussions by the participants. Furthermore, the series helps students to identify their research fields. Additionally, the RSS aims to foster networking among similarly minded researchers (all researchers from HPI and partner universities are invited to participate in the RSS program). Last but not least, Ph.D. students can also find collaborators within their community. The chair has developed the RSS concept consisting of two seminars, bi-weekly research updates, and a monthly journal club.
Workshop on Design Thinking and Business Innovation:

The workshop on Design Thinking and Business Innovation aims to improve the dissertation projects along with the Ph.D. / Doctorate life cycle. The workshop used different formats depending on the development stage of every Ph.D. candidate. The two-day seminar is prepared through previous review cycles. Thus, within the workshop, literature reviews and structured field analyses are conducted, and Ph.D.’s have the chance to pitch their proposals and Research in Progress.

Seminar on Research Methods:

The seminar's idea is to learn about state-of-the-art research methods in Design Thinking, Human-centered Design, and Business Innovation. Therefore, students write a report about one research method and give a short presentation about the different techniques.

Seminar on Scientific Publishing

The seminar's goal is to support Ph.D. students in understanding the basic rules and structures of journals and top conference papers. To do that, every student has to critically analyze a paper and write a comprehensive review for that given journal or conference paper.

Timeline of events in 2020:

RSS Workshop - Research Method Presentation

The RSS kick-off took place in 2019. In March 2020, Ph.D. students presented different research methods used in information systems and management research. Topics varied from Contingency Theory, Case Study Research, PLS to Repertory Grids, offering rich descriptions of these methods and theories. It was the foundation for discussions that helped students gain an overview of different approaches.
Date: 05.03.2020

Participants: Prof. Dr. Falk Uebernickel, Dr. Danielly de Paula, Babajide Owoyele, Selina Mayer, Christoph Gerling, Constantin Hartmann, Joaquin Santuber, Asieh Mirza Begherian, Thomas Haskamp, Stefanie Gerken

**RSS Workshop - WODT Presentation**

During this workshop, Ph.D. students presented their Ph.D. research's current status according to the seminar's different format. In this case, they presented the results of a comprehensive literature review on their particular research topic.

Date: 22.04.2020

Participants: Prof. Dr. Falk Uebernickel, Dr. Danielly de Paula, Christoph Gerling, Selina Mayer, Stefanie Gerken, Thomas Haskamp

**Research Seminar Series Kick-off SoSe 2020**

During this workshop, Prof. Dr. Falk Uebernickel and Dr. Danielly de Paula kicked off the new semester series for the WODT and Scientific Publishing Presentations.

Date: 03.06.2020

Participants: Prof. Dr. Falk Uebernickel, Dr. Danielly de Paula, Babajide Owoyele, Selina Mayer, Christoph Gerling, Joaquin Santuber, Reem Abou Refai, Annalena Lorson, Thomas Haskamp, Carolin Marx

**RSS Workshop - WODT Presentation**

During this workshop, PhD students presented their PhD research according to the different format of the seminar. These are: literature review, thesis idea, thesis proposal, Rip-Paper idea, and Rip-Paper polishing

Date: 14.09.2020

Participants: Prof. Dr. Falk Uebernickel, Dr. Danielly de Paula, Selina Mayer, Annalena Lorson, Thomas Haskamp, Carolin Marx

**RSS Workshop - Scientific Publishing Presentation**
During this workshop, Prof. Dr. Falk Uebernickel and Dr. Danielly de Paula kicked off the new semester series for the WODT Presentations.

Date: 25.09.2020

Participants: Prof. Dr. Falk Uebernickel, Dr. Danielly de Paula, Babajide Owoyele, Selina Mayer, Christoph Gerling, Constantin Hartmann, Joaquin Santuber, Reem Abou Refai, Annalena Lorson, Thomas Haskamp, Carolin Marx

Research Seminar Series Kick-off WiSe 2020/21

During this workshop, Prof. Dr. Falk Uebernickel and Dr. Danielly de Paula kicked off the new semester series for the WODT Presentations and Research Method. For the first time, colleagues from a different university joined us. In this case, three Ph.D. students of Prof Matthias Söllner from the University of Kassel joined for the HPI RSS WiSe 2020/21.

Date: 15.10.2020

Participants: Prof. Dr. Falk Uebernickel, Dr. Danielly de Paula, Selina Mayer, Joaquin Santuber, Reem Abou Refai, Annalena Lorson, Thomas Haskamp, Carolin Marx, Matthias Soellner, Michael Hausch, Florian Weber, and Laura Schlegel.

Research Update:

The biweekly research update meeting aims to regularly update students on Design Thinking and Business Innovation related research at HPI. Sometimes, also guest researchers join for discussions or presentations. Furthermore, students writing their bachelor or master thesis are invited a few times to present their status. Thus, students can get feedback and improve their research projects.

Journal Club:

The monthly gathering aims to facilitate regular exchange on foundational or newly published papers. Participants of the journal club receive the paper to be discussed in advance. During the session, the participants discuss the paper in terms of structure, methods, novelty, etc. In terms of outcomes, participants get an overview and an in-depth understanding of high-quality research work.
Global Team-Based Innovation II - 2019/2020 (HPI Master)

In close cooperation with the Chair for Enterprise Platform and Integration Concepts, we provide students with the opportunity to participate in the Sugar Network. This network of several universities worldwide aims to educate future Design Thinking practitioners by an interdisciplinary, experiential learning approach.

For nine months, three students of HPI team up with students from other universities and work on a challenging problem of a corporate partner using Design Thinking. Thus, students learn how to work in an interdisciplinary and international environment on real-world problems. Each team is facilitated by two teaching assistants closely accompanying the teams along the journey. In 2019, the chair supervised five student teams working on exciting and highly relevant problems with the following companies and universities:

**Partner Universities 2019/2020:**

<table>
<thead>
<tr>
<th>Partner Universities</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongji University (China) is a comprehensive, research-oriented institution, covering more than ten academic disciplines. We are working closely with their Design and Innovation Department.</td>
<td><img src="image1.png" alt="Tongji University" /></td>
</tr>
<tr>
<td>The University of St. Gallen (HSG), Switzerland, is one of Europe’s leading business schools. SUGAR projects take place with students having a strong business background.</td>
<td><img src="image2.png" alt="University of St.Gallen" /></td>
</tr>
<tr>
<td>The Karlsruhe Institute of Technology is one of leading universities in engineering in Germany. Since many years, we have been working together with our colleagues from the Karlsruhe Service Research Institute.</td>
<td><img src="image3.png" alt="Karlsruhe Institute of Technology" /></td>
</tr>
<tr>
<td>Swinburne University of Technology, Australia, is a research-oriented university, offering studies in a wide range of fields. We are working closely with the Design Factory Melbourne.</td>
<td><img src="image4.png" alt="Swinburne University of Technology" /></td>
</tr>
</tbody>
</table>

**Partner Universities – GTI 2019/2020**
**Partner Companies 2019/2020:**

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayerische Motoren Werke AG</td>
<td>Engages in the manufacture and sale of automobiles and motorcycles. Within the SUGAR project, we closely collaborate with representatives from BMW’s Production Planning department.</td>
</tr>
<tr>
<td>Georg Fischer AG</td>
<td>A Switzerland-based company engaged in the development of systems for industrial applications. The project is represented by employees from the Innovation Management of Georg Fischer AG.</td>
</tr>
<tr>
<td>HUK Coburg</td>
<td>A leading German insurance company. The project in cooperation with the representatives from HUK Coburg aims to help potential customers to deal more intensively with life and risk provision.</td>
</tr>
<tr>
<td>The Munich based technology group</td>
<td>Develops, produces and sells a wide range of electronic capital goods for industry and government customers with a focus on solutions that contribute to a safer and connected world. We are working with their Innovation Department.</td>
</tr>
<tr>
<td>Takeda</td>
<td>A research-based global company with a main focus on pharmaceuticals. As the largest pharmaceutical company in Japan, Takeda is committed to strive towards better health for patients worldwide through leading innovation in medicine. We are working closely with their Strategic Patient Services Department.</td>
</tr>
</tbody>
</table>

*Corporate Partners – GTI 2019/2020*
Team BMW | Data driven working model for center of competence

Challenge
How do we manage to bring our planning Centers of Competence to a data-driven working model?

Description
Students from the University of St. Gallen and the Hasso Plattner Institute have been investigating how BMW can have more data-driven production sites. The goal is to improve process efficiency, reduce time waste, and offer a better platform to facilitate knowledge sharing among different production sites. Since BMW cares about its employees, our students were asked to find a solution that both suits the business and the workers!

HPI Students: Eugenia Alleva, Jonas Bücker, Marvin Thiele
HPI Teaching Assistants: Danielly de Paula, Winfried Lötzsch
Partner University: University of St. Gallen (HSG)
Team Takeda | Improve the patient experience of people with narcolepsy

Challenge
How might we support people living with narcolepsy to predict and manage their condition?

Description
Rare diseases such as narcolepsy, a condition that disturbs the sleep-wake cycle and is characterized by excessive daytime sleepiness, are often diagnosed too late or not at all. This project aims to accompany and support people with narcolepsy throughout the course of the disease.

HPI Students: Julius Severin, Juan Carlos Niño Rodriguez, Wiktoria Staszak
HPI Teaching Assistants: David Hahn, Christopher Hagedorn
Partner University: Swinburne University Melbourne
Team Rohde & Schwarz | Making radio frequency monitoring future-proof

**Challenge**  
How might we help the responsible authorities to fulfill their tasks to keep the RF spectrum well-regulated and clear?

**Description:**  
How can a company like Rohde & Schwarz adapt to the rapid developments in times of 5G and a strong increase in participants in different radio frequency spectra. In this project, students work together with local authorities to ensure the regulation of the individual spectra and to make the reliability and security of the radio frequency spectrum easier to check.

**Team Members:** Leonard Pabst, Lukas Böhme, Nataniel Müller  
**Partner University:** University of St. Gallen (HSG)  
**Teaching Assistants:** Danielly de Paula, Winfried Lötzsch
Challenge
How might we enable factory businesses to set-up an industry 4.0 based waste water treatment solution for supporting sustainable production processes?

Description
Since Georg Fischer is continuously working on redesigning the process of wastewater treatment in China, students from the Hasso Plattner Institute and Tongji University are using the design thinking mindset to tackle the challenge of industrial wastewater pollution with modernized digital techniques while keeping in mind the concept of sustainability.

Team Members: Spoorthi Kashyap, Nina Kiwit, Anton von Weltzien
Partner University: Tongji University
Teaching Assistants: David Hahn, Christopher Hagedorn
Team HUK-COBURG | Design of life and risk provision service

Challenge
How might we help potential customers to deal more intensively with life and risk provision and design an attractive service for them that convinces them to approach their provision together with HUK-Coburg?

Description
How does HUK-COBURG manage to introduce its motor insurance customers to the topic of old-age provision? The three HPI students Martin Meier, Johannes Hötter and Pascal Crenzin deal with these questions together with their partner team from the Karlsruhe Institute of Technology.

HPI Students: Johannes Hötter, Pascal Crenzin, Martin Meier
HPI Teaching Assistants: Tobias Wuttke, Keven Richly
Partner University: Karlsruhe Institute of Technology (KIT)
Global Team-Based Innovation II - 2019/2020 (Outcomes)

From the classroom to an entrepreneur - as part of the Global Team based Innovation class, this journey becomes reality - and in 2020 even for four students that took part in our class.

**Visense - Machine Error Monitoring**

The start-up emerged from a collaboration between students from HPI and the University of St.Gallen who worked on a project with the manufacturing department of the BMW Group. The team around Marvin Thiele (HPI), Pia Spori (HSG), and Christian Reich (HSG) managed to receive substantial funding provided by both HSG and HPI.

VISENSE is a remote error diagnosis solution that provides real-time insights into industrial production errors, allowing you to identify and resolve incidents quickly and precisely. It can be used on an extensive range of different machine types and production line complexities. VISENSE provides you with a high-quality database on production error incidents that is reduced to the information your machine experts truly need to make informed decisions.

**Onetask.ai**

The start-up was established through the three students Johannes Hötter (HPI), Henrik Wenck (HPI), and Simon Witzke (HPI). Their idea is a software that should enable users without AI experience in companies to approach the topic of AI in the best possible way. Their solution - onetask.ai - combines data annotation and the validation of AI models into one step to shorten the process of a costly and lengthy AI introduction. Subsequently, the AI model trained based on individual data is to be exported and can be integrated into the existing infrastructure.
Global Team-Based Innovation I - 2020/2021 (HPI Master)

At the first time, the course Global Team-Based Innovation was hosted completely through the DTIR in close collaboration with the Sugar Network. This network of several Universities around the world aims to educate future Design Thinking practitioners by an interdisciplinary, experiential learning approach.

For nine months, three students of HPI team up with students from other universities and work on a challenging problem of a corporate partner using Design Thinking. Thus, students learn how to work in an interdisciplinary and international environment on real-world problems. Each team is facilitated by two teaching assistants closely accompanying the teams along the journey. In 2020, the chair supervised seven student teams working on exciting and highly relevant problems with the following companies and universities:

**Partner Universities 2020/2021:**

- **Stanford University, California, USA** is one of the world’s leading and most prestigious research institutes, covering more than ninety academic disciplines. We are working closely with their Mechanical Engineering Department.

- **Kyoto Institute of Technology, Japan**, is one of Japan’s leading national universities. SUGAR projects take place with students having a strong technical background.

- **The Karlsruhe Institute of Technology** is one of leading universities in engineering in Germany. For many years, we have been working together with our colleagues from the Karlsruhe Service Research Institute.

- **Universidade de São Paulo, Brazil**, is the largest and most prestigious Brazilian public university offering studies in a wide range of fields.

- **Linköping University, Sweden**, is one of the famous academic institutions with a strong multidisciplinary research focus. We are working with students having a strong business background.

**Partner Universities – GTI 2020/2021**
**Partner Companies 2020/2021:**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Description</th>
<th>Collaboration Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyundai Motor Company</td>
<td>Commonly known as Hyundai Motors is a South Korean multinational automotive manufacturer of automobiles and commercial vehicles. Within the SUGAR project, we closely collaborate with representatives from Hyundai’s Production Planning department.</td>
<td></td>
</tr>
<tr>
<td>Nestlé S.A</td>
<td>A Switzerland-based multinational food and beverage conglomerate engaged in the production of diverse food products and drinks. The project is represented by employees from the Innovation Management of Nestlé S.A.</td>
<td></td>
</tr>
<tr>
<td>HUK Coburg</td>
<td>A leading German insurance company. The project in cooperation with the representatives from HUK Coburg aims to help potential customers to deal more intensively with life and risk provision.</td>
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**Corporate Partners – GTI 2020/2021**
Team Hyundai | Establish car as the communication space of the future

Challenge
How could we establish the car as the communication space of the future?

Description
Students from Hasso Plattner Institute and Stanford University have been investigating the car of the future. Teamed up with Hyundai they are looking at a world of autonomous cars, future work models and communication concepts. All this with the goal to transform the car of today into the communication space of the future.

HPI Students: Ben Hurdelhey, Hendrick Patzlaff, Carla Terboven
HPI Teaching Assistants: David Hahn, Carolin Marx
Partner University: Stanford University (USA)
Challenge
How might we sense and prevent mental disorders using a network of humans and machines?

Description
Takeda is one of the leading pharmaceutical companies in the world. Founded and based in Japan, they decided to team up with the Hasso Plattner Institute in Germany and the Kyoto Institute for Technology in Japan to tackle the challenge of sensing and preventing mental illnesses with a focus on the Japanese society. In addition to the traditional drug business, Takeda is always trying to offer holistic solutions for patients, augmenting products with additional services and embedding them in a larger variety of offers. The team is therefore interviewing people around the globe, to learn about mental illnesses, existing solutions to ease them and possible ways to prevent them. Leading them to the final stage of the project, where they will develop their own product.

HPI Students: Soumya Suvarna, Theresa Hradilak
HPI Teaching Assistants: David Hahn, Roman Reinert
Partner University: Kyoto Institute for Technology, Japan
Team Rohde & Schwarz | Authenticity of media and its source

Challenge
How could we help organizations and social media platforms to verify the authenticity of media and its source during media creation, distribution and - use in the age of fake media?

Description:
How can a company like Rohde & Schwarz help to ensure the authenticity of media in an era of fake media, increasing media distrust and rapid technological advancement? Students from Hasso Plattner Institute and Linköping University tackle this media authenticity challenge by diving deep behind the scenes of the world of fake media and deep fakes investigating different roles (e.g., faker, user, target) from different angles (e.g., creation, prevention, detection).

Team Members: Kris-Fillip Kahl, Paul Brachmann, Eric Ackermann
Partner University: Linköping University, Sweden
Teaching Assistants: Carolin Marx, Leonard Pabst
Team Nestle | Establish a new approach to innovation

**Team Nestle**

**Challenge**
How might we design a solution that leverages digital (technology) experiences to efficiently scale global innovation and foster a trustworthy development of innovation capabilities adapted to Nestlé Global culture?

**Description**
With the increase of Nestlé’s brands across the global and in multiple continents, it has become more and more essential to keep the entire group connected on multiple levels including the innovation teams as cross-functional teams. Fostering intercontinental and regional collaboration through digital mediums has become a critical urge and with the most recent global events, the desire has never been higher.

**Team Members:** Sebastian Brito, Zoe Hille, Jan Westphal  
**Partner University:** University of Sao Paulo  
**Teaching Assistants:** Danielly de Paula
Team HUK-COBURG | Design of life and risk provision service

Challenge
How can we support HUK24 in addressing existing customers about the existing products in the HUK ecosystem, taking into account the current needs of said customers?

Description
Together with students from the Karlsruhe Institute for Technology in Germany, students from the Hasso Plattner Institute are investigating insurance companies in our modern digitalized world. Learning about new competitors and complex user needs, they are investigating insurance trends and communication strategies in this competitive market.

HPI Students: Georg Lange, Benedikt Schenkel, Jonathan Gadea Harder
HPI Teaching Assistants: David Hahn, Leonard Pabst
Partner University: Karlsruhe Institute of Technology (KIT)
Challenge
How could we design a control tower for Takeda’s Factory of the Future that overcomes silos and communication gaps and ensures effective operation within the entire organization?

Description
Takeda is one of the world’s leading pharmaceutical companies, founded and based in Japan. One core competency of Takeda is the production of plasma-derived products for end customers. This project, in which students from the Hasso Plattner Institute work together with students from Stanford University, aims to optimize the supply chain management of the plasma business unit by developing a data-driven control tower.

HPI Students: David Justen, Dominik Meier, Leo Wendt
HPI Teaching Assistants: David Hahn, Thomas Haskamp
Partner University: Stanford University (USA)
Challenge
How could we reinvent international bank transfers for Swiss customers in order to improve the entire process in terms of simplicity, usability, availability and costs?

Description
A team of students from HPI and LiU aims to find new solutions for how private and corporate customers of Postfinance can run their financial transactions that require the use of foreign currencies. As part of their journey, the team investigates and benchmarks different payment solutions aiming to identify relevant user needs which serve as a basis to develop creative ideas.

HPI Students: Samuel Hummel, Florian Hübscher
HPI Teaching Assistants: Thomas Haskamp, Roman Reinert
Partner University: Linköping University, Sweden
Human-centered Design and Requirements Engineering for Software Engineers (HPI Master)

**Teaching Team:** Prof. Dr. Falk Uebernickel, Dr. Danielly de Paula, Thomas Haskamp

**Semester:** Summer 2020

**Participants:** 13

**Description:** What does human-centered design mean for digital products and services? How can information systems be designed in a way that serves people’s needs best? What kinds of frameworks exist to translate human needs into software requirements? Are there quantitative measures to identify human behaviors and needs? As part of this lecture, we will address these and more questions regarding human-centered design and requirements engineering in the context of software engineering. This lecture will help you improve your skillset and capabilities to prioritize software requirements based on your user's and customers' needs. Furthermore, we will cover topics like the C-K theory, affordance theory, design thinking, design as a cognitive and social activity, or creativity in software design.

Design Strategie und digitale Geschäftsmodelle (HSG Master)

**Teaching Team:** Prof. Dr. Walter Brenner, Prof. Dr. Falk Uebernickel, Prof. Dr. van Giffen

**Semester:** Summer 2020

**Description:** The penetration of all sectors and industries by the Internet is constantly increasing. Under the catchword of "Digitalization", machines are increasingly equipped with sensors and actuators and connected to the Internet. Nowadays, this results in a field of tension between companies established in the market and high-tech startups. At the center of this field of tension is whether new markets should be created by established products and services or by new software-based business models. Software-based business models, in particular, require a new approach to problem-solving to develop the business models quickly and agile and rapid development on the one hand and align them with the requirements of users and customers on the other. The event will deal with this aspect of digitalization from two perspectives:

1) Digital business models: Along with well-known frameworks for structuring business models, real business models will be analyzed and further developed. Particular attention is paid to the effects of digitalization.

2) Design Thinking: Customer orientation and agility are increasingly becoming critical success factors in market development. Design Thinking is a necessary tool for this. In the context of the lecture, Design Thinking will be run through in a two-day bootcamp which contains the essential steps and makes them tangible.
Master and Bachelor Thesis (HPI/HSG – BA/MA)

The chair for Design Thinking and Innovation Research supervises numerous thesis on bachelor and master level. Students work on interdisciplinary research topics in the area of technology and Design Thinking. By supervising these students closely, the chair aims to qualify the future generation for research in academia. We supervise our students following a thesis funnel, which ensures methodological rigor and close exchange.

**Thesis Process**

Student theses are written in close collaboration with different organizations such as private or public companies. The chair aims to deliver a master thesis written by the students that can be published at a conference level.

**Bachelor Level Thesis**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparing the Design Thinking Adoption Model and the Experiential Learning Cycle</td>
<td>Stoecker, Nicolas</td>
<td>In Progress</td>
</tr>
<tr>
<td>Holistic measurement of organizational innovativeness - Analyzing the adequacy of performance measurement frameworks to assess innovativeness and its impact</td>
<td>Purucker, Franz</td>
<td>Submitted</td>
</tr>
<tr>
<td>The Role of Citizen Participation in Smart Cities: The Case of Smart City Governance in Switzerland</td>
<td>Müller, Elena</td>
<td>Submitted</td>
</tr>
<tr>
<td>How Online Platforms Support Geographically Distributed Design Thinking Teams: A Comparison between two Online Platforms</td>
<td>Häberli, Robin</td>
<td>Submitted</td>
</tr>
<tr>
<td>Collaboration mechanisms in the field of AI</td>
<td>Hutter, Tobias</td>
<td>Submitted</td>
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<tr>
<td>Applications of human-centered design in the field of AI</td>
<td>Neumann, Björn</td>
<td>Submitted</td>
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</table>

**Overview of Bachelor Thesis**
### Master Level

<table>
<thead>
<tr>
<th>Topic</th>
<th>Name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracer: Requirements Engineering and User Interface Design of a Web App to Support Requirements Tracing for Human Centered Design</td>
<td>Carolin Müller</td>
<td>In Progress</td>
</tr>
<tr>
<td>Tracer: Designing and Implementing the Business and Data Layer to Support Requirements Tracing for Human-Centered Design</td>
<td>Nico Duldhardt</td>
<td>In Progress</td>
</tr>
<tr>
<td>Tracer: Designing and Implementing a Web App to Support Requirements Tracing for Human Centered Design</td>
<td>Carl Gödeken</td>
<td>In Progress</td>
</tr>
<tr>
<td>The role of HCD in the field of AI</td>
<td>Anabel Gloor</td>
<td>In Progress</td>
</tr>
<tr>
<td>Human centred design in information security</td>
<td>Tom Hoffmann</td>
<td>In Progress</td>
</tr>
<tr>
<td>Empathy for improved security control design</td>
<td>Renato Lipovac</td>
<td>In Progress</td>
</tr>
<tr>
<td>The integration of knowledge management and dynamic capabilities: Development of a framework</td>
<td>Anouk Breitenstein</td>
<td>Submitted</td>
</tr>
<tr>
<td>Case Study - Developing Success Measures for Design Thinking: A performance measurement system on a human-centered innovation process level</td>
<td>Fabrice Bickel</td>
<td>Submitted</td>
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<tr>
<td>Collaborate To Innovate: Utilizing Open Innovation Design Patterns For Accelerating The Digital Transformation Of SMEs</td>
<td>Katrin Schneider</td>
<td>Submitted</td>
</tr>
<tr>
<td>Design Thinking efforts in professional institutions worldwide. How they developed and what differs them.</td>
<td>David Hahn</td>
<td>Submitted</td>
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<tr>
<td>Innovation Pulse: A Mobile Application to Better Understand Creative Teams Using Micro Surveys</td>
<td>Celine Stalder</td>
<td>Submitted</td>
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<tr>
<td>Innovation Accounting - how do digital innovation units measure their human-centered innovation efforts?</td>
<td>Bosch-Herterich, Anna</td>
<td>Submitted</td>
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<tr>
<td>Exploring Boundary Objects and their Affordances in the Context of Design Thinking Projects from a Multi-Stakeholder Perspective</td>
<td>Cernomoret, Alexandr</td>
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<tr>
<td>Success Factors of Inter-organizational Collaboration in New Product Development: A Knowledge Worker's Perspective</td>
<td>Haskamp Thomas</td>
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<tr>
<td>Design Thinking in Automotive Manufacturing - Using Q-Methodology to explore Behavioral Archetypes of Design Thinking Team Members</td>
<td>Misterli, Florian</td>
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<tr>
<td>Title</td>
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<tr>
<td>Measuring Design Thinking: An investigation of potential indicators to measure Design Thinking projects in the field of digital innovation</td>
<td>Sabbioni, Tiziano</td>
<td>Submitted</td>
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<tr>
<td>Measuring the Impact of Diversity in Design Thinking Teams on their Performance</td>
<td>Salim, Karim</td>
<td>Submitted</td>
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<tr>
<td>Configuration and Application of Digitally Enabled Healthcare Service in Developing Countries: A Human-centered Case Study for Kenya</td>
<td>Zarske Bueno, Bastian</td>
<td>Submitted</td>
</tr>
<tr>
<td>A framework to Reach the Underserved Population in Developing Countries with Healthcare Solutions: A Comprehensive Case Study in Rural Kenya</td>
<td>Zarske Bueno, Jan</td>
<td>Submitted</td>
</tr>
</tbody>
</table>

**Overview of Master Thesis**
open.HPI - Mastering Design Thinking in Organizations

Teaching Team: Prof Falk Uebernickel, Dr Danielly de Paula  
Semester: Winter 20 (Oct 13th to 26th 2020)  
Participants: >6600  
Description: As part of this course, experienced DT practitioners were invited to share success stories of the different implementation strategies their organizations adopted when implementing design thinking. Besides that, they shared with us the critical cultural and organizational changes that were necessary to make that happen, such as how to EMPOWER employees to use DT, how to ENACT DT in different industries, and how you can PROVE that DT works. Finally, the practice was then complemented with academic talks concerning the most recent theoretical developments in design thinking and innovation research.  
The course started with 4707 participants and ended with more than 6600. In total, 41 % of the participants finished the course with a certificate, 48 % with a certificate of attendance, 11,6 % commented in the forum, and 57,7 % created a discussion topic on the forum. Most of the participants came to the course via LinkedIn, and nearly 25% of the participants are new to openHPI.
Research Activities

The chair aims to conduct research around the topics of Design Thinking and Innovation Research. In specific, the chair has done research activities in mainly two areas in 2020. Firstly, one group has looked more detailed into the role of Digital Innovation Units and Digital Transformation efforts of companies that aim to strengthen their innovation capabilities. Second, another group has investigated the role of Design Thinking on various levels, for example, looking at how we can measure design thinking in organizations, and how design thinking is implemented on different levels in organizations.

### RESEARCH MISSION: INCORPORATE HUMAN-CENTERED DESIGN IN ORGANISATIONS FOR DIGITAL INNOVATION

**Digital Transformation and Digital Innovation**

- Digital Innovation Units (DIUs): What is the role of DIUs in companies digital transformation journey? How do they measure performance and success? (Annalena Lorson, Thomas Haskamp, Falk Uebernickel)
- Digital Transformation: How do firms manage inertia in their digital transformation efforts? What’s the role of strategic cognition and mental models of decision-makers in digital transformation? (Carolin Marx, Thomas Haskamp, Falk Uebernickel)

**Management of Human-centered Design in Organisations**

- Impact Measurement: How can we measure the impact of design thinking in organisations? (Selina Mayer, Falk Uebernickel)
- Performance Measurement: How can we measure and steer design thinking activities in organisations? (Thomas Haskamp, Danielly de Paula, Falk Uebernickel)
- Design Thinking Maturity in Organisations: What are different manifestations of design thinking in practice? (Carolin Marx, Thomas Haskamp, Danielly de Paula, Falk Uebernickel)
- Design Thinking Implementation: How is design thinking implemented and enacted in practice? (Danielly de Paula, Falk Uebernickel)
- Human centered Design for Software Engineering/Requirements Engineering: How can design thinking be integrated into requirements engineering for software development? (Danielly de Paula, Falk Uebernickel)

### Research Areas
Hasso Plattner Design Thinking Research Program 19/20

**Title:** Connecting the dots - Planning, measuring and steering the impact of human-centered design and Design Thinking in organizations

**Start and End Date:** 01.10.2019 till 31.09.2020

**Description:** Over the last years, the role of design in organizations expanded from a form-giving activity to a strategic problem-solving and decision-making capability. Especially in light of the uncertain and complex nature of digital ecosystems with various stakeholders pursuing different and sometimes contradictory goals, human-centered design (HCD) is (re-)gaining traction. At the same time, today’s dynamic world is characterized by volatility and change. Therefore, HCD is not only promising at the outset of innovation projects, but needs to be adapted continuously over the life cycle of projects. Accordingly, the main research question at hand is “How can software-driven organizations plan the systematic improvement and constant use of Design Thinking and HCD aligned and synchronized with the existing corporate strategy?” To investigate this question, we will apply the well-established and rigorous research methodology “Design Science Research” (DSR). As an outcome, we plan high-level publications in the coming year along with practitioner reports.

**Participants:** Prof. Dr Falk Uebernickel, Dr Danielly de Paula, Thomas Haskamp

**Related Publications:**


Hasso Plattner Design Thinking Research Program 20/21

**Title:** Human-Centered Digital Innovation - Strategies, Routines and Metrics for managing human-centered digital innovation in Digital Innovation Units

**Start and End Date:** 01.10.2020 till 31.09.2021

**Description:** In their attempt to enhance their ability to develop digital innovations, many incumbent firms have set up digital innovation units as an exploratory organizational setup to develop digital innovations. Especially due to the COVID-19 pandemic, these innovation activities are under pressure and need to show accountability for the resource investment made. Furthermore, research shows that knowledge
about their performance is limited. While the need for human-centered digital innovation is still unbowed, this proposal aims to develop management instruments that improve the effectiveness and efficiency of human-centered digital innovation efforts. This results in the following main research question: How can digital innovation units manage the development of human-centered digital innovations in the most efficient and effective way? As an outcome, we plan high-level publications, practitioner reports, and the development of several artifacts that practitioners can use.

Participants: Prof. Dr Falk Uebernickel, Dr Danielly de Paula, Thomas Haskamp, Carolin Marx

Ph.D. Topics

Ph.D. Student: Selina Mayer - Impact of Design Thinking in Organizations and on Individuals

Roger Martin describes Design Thinking as “the most powerful formula for competitive advantage in the twenty-first century”. Up to date, scholars and practitioners discuss the added value of DT as quite controversial. Johansson-Sköldberg, Woodilla and Çetinkaya even sum it up as being “easy for the temporarily intensive discourse to be dismissed as hype or a fad.”. One critical argument is that the impact of DT on organizational performance is lacking empirical evidence. Therefore, Selina Mayer aims in her dissertation to better understand the impact of DT in organizations and on individuals. As a first step, a qualitative research design following the grounded theory approach is applied. Preliminary results indicate that while organizations implement DT for creating innovation outcomes, individuals experience change on a personal level. Therefore, the individual and organizational level have to be considered when it comes to the impact of DT.

Ph.D. Student: Annalena Lorson - The role of Digital Innovation Units in the Digital Transformation of manufacturing companies

Digital Transformation – “a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies” – is currently one of the key challenges, especially for pre-digital organizations. Closely interrelated with Digital Transformation is the ability to successfully manage and bring about Digital Innovations – “the creation of (and the consequent change in) market offerings, business processes, or models that result from the use of digital technology”. In order to do so, many companies have established “Digital Innovation Units” that are separated from the firm’s remaining organization (e.g., in terms of location, mindset, collaboration, communication, etc.) and bundle their exploration efforts to foster (digital) innovation. These “fast-lanes” of innovation represent a fairly new phenomenon and so far, literature regarding DIUs is sparse. Within the framework of her dissertation, Annalena would like to build a deep understanding of DIUs in the manufacturing industry and their role in Digital Innovation and Transformation in these firms by e.g., looking at how they are set up and work on the ground.
Ph.D. Student: Thomas Haskamp - Managing Resistance in Digital Transformation: A Critical Realist Perspective on Organizational Inertia

Digital Innovation has triggered many companies to initiate Digital Transformation projects and initiatives. As part of these activities, managers are often confronted with resistance - referred to as organizational inertia - from organizational members. Overcoming this resistance often decides whether transformation fails or succeeds. Taking a critical realist stance on transformation and using the morphogenetic approach from Archer, this dissertation investigates the role of inertia in the context of Digital Transformation. The first step aims to develop the theoretical foundation by developing a critical realist perspective on how digital transformation unfolds. In a second step, the thesis investigates specific initiatives and projects and how its organizational members dealt with different upcoming inertia types. Based on this, different strategies or capabilities shall be identified to overcome the different levels of inertia. Its contribution lies in the sophisticated analysis of inertia on which foundations strategies for dealing with inertia can be developed.

Ph.D. Student: Carolin Marx - The role of Strategic Cognition for Digital Transformation

Strategic cognition, or the cognitive perspective in strategy, emphasizes structures and processes of cognition in explaining strategy and the competitive advantage of firms. Cognition guides managerial action, particularly in situations involving change and decisions under uncertainty. Digital transformation understood as an ongoing process requires such complex decision-making for strategic change and remains one of the most challenging tasks in today's digitally disrupted business world. Hence, individual managerial cognition and related cognitive frames are likely to play a large role in any Digital Transformation process. This dissertation aims to bring a cognitive approach to IS and management research to recognize and understand the interrelations between individuals' cognition and reactive behaviors and their impact on organizational Digital Transformation initiatives' success. Building an understanding of the role of strategic cognition for Digital Transformation, the dissertation empirically investigates different types of relevant cognitive frames within Digital Transformation related decision-making processes, their emergence, and their impact on strategic outcomes.
Research Guest Talks

Title: Qualitative Research: Trying Grounded Theory Methodology

Guest: Prof Dr Manuel Wiesche (TU Dortmund)

Date: Jun 19th

Description: Prof Wiesche delivered a one-day workshop to explain the potentials of grounded theory and how it can be used to address research questions.

Title: The architecture of an IS paper

Guest: Prof Dr Gerhard Schwabe & Dr Mateusz Dolata (University of Zurich)

Date: Oct 14th

Description: Prof Schwabe and Dr Mateusz Dolata explained how to structure papers when targeting Information Systems conferences.

Title: Research Seminar - Framing your PhD

Guest: Dr Christian Dremel (University of Bamberg)

Date: Dec 17th - 19th

Description: Dr Dremel delivered a three-day workshop to support the Ph.D. students to position their research in the Information Systems community and how to strategically develop a publication plan.
Track: HICSS Conference 2021

Date: 04.01.2021 - 07.01.2021

Location: Hawaii, USA

Track Chairs:
- Prof. Dr Falk Uebernickel, Hasso Plattner Institute
- Prof. Dr Matthias Söllner, University of Kassel
- Prof. Dr Manuel Wiesche TU Dortmund University
- Prof. Dr Daniel Mendez, Blekinge Institute of Technology

Description: The Chair of Design Thinking and Innovation Research got accepted to host a Mini Track for the Hawaii International Conference of System Sciences. Digital products and services are progressing in their importance for our nowadays economy. Besides technological considerations, the alignment to human and user needs is of high relevance for the success and sustainable use of digital innovations and related software systems. The minitrack offers a stimulating forum where researchers and practitioners, who are investigating the field of „human-centered design“ in close relationship with digital innovations, digitization and requirements engineering, can present and discuss recent research results on a wide range of topics, in addition to exchanging ideas, experiences and challenging problems. We are looking for qualitative and quantitative contributions and encourage the submission of articles in the following domains:
  - The impact of human- and user-needs on technology decisions
  - Innovation management practices for digital innovations
  - Archetypes of human behavior in relationship to digital innovations and innovation outcomes
  - The interlink between requirements engineering and human-centered design
  - Incorporation of human-centered design and software development methods
  - Measurement and impact of human-centered design on organizational and project level on digital innovations
  - Skills and capabilities for human-centered design in organizations
  - Incorporation of human-centered design in business process modeling
  - (Advanced) techniques for human-centered design in the development process for digital innovation
  - The application of human-centered design and Design Thinking as part of digital transformation programs
  - Testing procedures and prototyping techniques
  - Approaches to increasing the acceptance of digital innovations by users and other stakeholders
  - Effectiveness of human-centered design training
  - Human-centered design and innovation management practices for digital innovation
  - Governance models for digital innovations

The track encourages the submission of novel work, new ideas, and position statements alike pertaining to solutions in the above-mentioned areas and their empirical evaluations.
Publications & Research


Research Metrics of Prof. Dr Falk Uebernickel: h-Index: 22, i10-Index: 56
Research Metrics of Dr Danielly de Paula: h-Index: 6, i10-Index: 4
Public Presentations and Guest Talks

Presentations & Panels

**Presentation: Design Thinking für KMUs by Prof. Dr Falk Uebernickel**

*Date*: 18.01.2020  
*Location*: Berlin, Germany  
*Description*: Prof. Dr Falk Uebernickel gave a keynote about how small and medium-sized companies can apply design thinking by showcasing successful projects of the past

**Presentation & Panel: Panel Digital Optimierte Distribution**

*Date*: 20.02.2020  
*Location*: Potsdam, Germany  
*Description*: As part of the Industry 4.0 Conference, Prof. Dr Uebernickel had the honor to moderate a panel on Digital Optimized Distribution. Members of the Panel were Dr. Thomas König, COO Networks, E.ON SE, Peter Flosbach, Technical CEO DEW21 GmbH and Michael Weinhold, CTO Siemens Infrastructure

**Presentation: Creative Leadership - New Management Paradigms in a Digital World by Prof. Dr Falk Uebernickel**

*Date*: 24.02.2020  
*Location*: New York, USA  
*Description*: The business world has become volatile, uncertain, complex, and ambiguous (VUCA), requiring organizations to reconceptualize, even disrupt themselves repeatedly. Operating in a VUCA world presents salient challenges for leaders: How do you lead in such environments, ensuring your workforce has both the capacity to cope with such challenges as well as the capability to respond? How can leaders develop more agile, human-centered business cultures that foster creativity? Prof. Falk Uebernickel will provide examples of organizations that have successfully navigated this complex terrain and discuss some of the innovative methods they have employed. He will also present a new management paradigm that allows organizations to be more nimble and resilient.
Presentation & Panel: Selbst aktiv werden für den Digital Wandel - SCC Anwendertag by Thomas Haskamp

*Date:* 02.09.2020  
*Location:* Merseburg, Germany  
*Description:* Digital Transformation presents a major challenge for companies and societies. As part of this talk, Thomas explained the impact of Digital Transformation on Organizations and pointed out several implications that Digital Transformation has for individuals and organizations. In the second part, Thomas discussed as a member of a panel how organizations can master digital Transformation.

Presentation: Innovation in times of constant change - E.ON

*Date:* 04.08.2020  
*Location:* Zoom Webinar  
*Description:* As part of this presentation Prof Dr Falk Uebernickel talked about different modes of innovation and the relationship between change in society and organizations and how this relates to innovation.

Presentation: Research meets Design Thinking - InterDent Networking Meeting

*Date:* 27.08.2020  
*Location:* Potsdam, Germany  
*Description:* In this presentation Prof Dr Falk Uebernickel introduced Design Thinking and the role of the approach in different research areas. Thus, he gave examples how Design Thinking is applied in different areas such as digital health or cybersecurity.

Presentation: Sustainability in Asian Markets - Online Horizon Presenting Design Thinking Challenges

*Date:* 27.08.2020  
*Location:* Zoom Webinar  
*Description:* As part of this presentation Prof Dr Falk Uebernickel talked about Sustainability in Asian Markets and the Role of Design Thinking in addressing these challenges.
Presentation: Design Science Research within the IS community by Prof. Dr. Falk Uebernickel

Date: 26.10.2020  
Location: Potsdam, Germany  
Description: The Information Systems (IS) community has matured within the last decade strongly in acting out rigor and relevant research with a strong focus on conference and journal publications. My research talk will focus on the Design Science Research approach (DSR) that is widely used within the IS community to build the backbone for a wide range of articles. As part of my talk, I will explain the basics from a scientific perspective and show the potential use of DSR for your research projects.

Presentation: Kundenorientiertes Projektmanagement mit Design Thinking - Keynote IAM Connect 2020 by Prof. Dr Falk Uebernickel

Date: 30.11.2020  
Location: Online  
Description: The presentation will use real examples to show how companies can use design thinking to consistently align digitization projects with customer benefits and bring them to a successful conclusion. Practical challenges and best practices will be addressed, as well as the process model of design thinking in the context of IT applications.

Presentation: An introduction to Design Thinking by Dr Danielly de Paula

Date: 04.12.2020  
Location: Universität Tübingen / Human-Computer Interaction Chair of Prof Dr Enkelejda Kasneci  
Description: Prof Dr Enkelejda Kasneci invited Dr Danielly to deliver a guest lecture to her students who had just started their bachelor studies. As part of this guest lecture, Dr Danielly de Paula introduced bachelor students to the fundamentals of design thinking how DT can help them to identify user needs. A total of 100 students attended the lecture, which was 90min long.
## Guest Talks

<table>
<thead>
<tr>
<th>Description</th>
<th>Speaker</th>
<th>Date and Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>How hard it is to implement an innovation culture - Dr Skinner shared her</td>
<td>Dr Catharine Skinner, EON</td>
<td>Date: 15.01.2020 Location: Online</td>
</tr>
<tr>
<td>experiences on how we can implement an innovation culture in large</td>
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<td>organizations.</td>
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<tr>
<td>Renate Wagner shared Allianz’ approach to innovation and their work</td>
<td>Renate Wagner, Board Member, Allianz SE</td>
<td>Date: 05.06.2020 Location: SUGAR Expo Cloud</td>
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<tr>
<td>culture.</td>
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<tr>
<td>Sarah Roversi spoke about the inclusion of innovation in combination with</td>
<td>Sarah Roversi, Future Food Institute</td>
<td>Date: 05.06.2020 Location: SUGAR Expo Cloud</td>
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<td>food from a scientific approach to prepare for the future need of feed</td>
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<td>supply.</td>
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<td>Martin Wezowski shared his vision for the future and how innovation will</td>
<td>Martin Wezowski, SAP</td>
<td>Date: 05.06.2020 Location: SUGAR Expo Cloud</td>
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<td>change.</td>
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<tr>
<td>Phil Gilbert spoke about the innovation journey at IBM, which he introduced</td>
<td>Phil Gilbert, IBM</td>
<td>Date: 05.06.2020 Location: SUGAR Expo Cloud</td>
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<td>to IBM.</td>
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<td>Dr Larry Leifer spoke about the history of ME310, project examples and</td>
<td>Prof. Larry Leifer, Stanford University</td>
<td>Date: 05.06.2020 Location: SUGAR Expo Cloud</td>
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<td>introduces neurodesign.</td>
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<tr>
<td>The world-renowned musician Xiang Dong Kong spoke about the combination</td>
<td>Xiang Dong Kong, Pianist</td>
<td>Date: 21.10.2020 Location: SUGAR GKO Cloud</td>
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<td>of artificial intelligence and music.</td>
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<td>Dr Amollo Ambole spoke about extreme affordability in combination with</td>
<td>Dr Amollo Ambole, University of Nairobi</td>
<td>Date: 23.10.2020 Location: SUGAR GKO Cloud</td>
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<td>examples from innovation projects in Kenia.</td>
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<tr>
<td>Dr Tamara Carleton spoke about innovation with looking specifically into</td>
<td>Dr Tamara Carleton, Stanford University</td>
<td>Date: 27.10.2020 Location: SUGAR GKO Cloud</td>
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<td>the future. She gave tools at hand on how to do so.</td>
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<tr>
<td>Description: Prof. Ellen Do introduced the audience to the importance to</td>
<td>Prof. Ellen Do, University of Colorado,</td>
<td>Date: 14.12.2020 Location: SUGAR+ Fall presentation online</td>
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<tr>
<td>design critique and giving tools at hand.</td>
<td>Boulder</td>
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</tbody>
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### Overview of Guest Talks
Podcasts

Title: HPI Neuland - Unternehmen auf Innovationskurs bringen mit Design Thinking - Prof. Dr Falk Uebernickel im Gespräch im HPI Neuland Podcast

Date: 26.11.2020

Description: Prof. Dr Falk Uebernickel was invited as a guest within the HPI Neuland Podcast. He gave an interview about how companies can remain innovative in challenging times. He provided insights on how organizations can master digital transformation.

Events

SUGAR+ Winter Presentations by Karlsruhe Institute of Technology

Date: 09.03.2020
Location: Zentrum für Kunst und Medien (ZKM) Karlsruhe

Description: In regular events of the SUGAR network, student teams from the Global Team-based Program present their current project status to students from other universities, corporate partners and teaching staff from network universities. In the Winter Presentation event, hosted by KIT Germany in Karlsruhe first prototypes, developed by the students were presented. The students actively collected feedback from the audience and had the opportunity to network with the visitors.

SUGAR+ EXPO Cloud Event

Date: 04.06.2020
Location: Fully digital event using the event plattform hopin

Description: Due to the on-going COVID-19 pandemic, this event had to happen in a full digital format. Student teams from across the globe presented their final product ideas and prototypes in this SUGAR network event. Representatives from the partner companies (such as Takeda, BMW, +GF+, NKC, IBM and HUK) attended to network with each other and give feedback to the student teams. The yearly SUGAR EXPO is the summit of a 9-month journey, full of international cooperation and product development ideas. The students have the chance to network, present themselves and their ideas and are celebrated for their successful work. The program is augmented with keynote speeches from industry and academia.

SUGAR+ Global Kick Off Cloud Event

Date: 21.10.-27.10.2020
Location: Fully digital event using Whoova and Zoom

Description: At this event, the global SUGAR network meets internally with the current batch, so that the student teams can meet their counterpart and kick off their projects in their global team. The program offers a mix of team building activities, inspirational talks, keynotes and project meetings with a global
teaching team. The global program was augmented by a local agenda at Hasso Plattner Institute, including team building activities and lectures.

**SUGAR+ Fall Presentation**

*Date:* 14.12.2020  
*Location:* Full digital event using Zoom  
*Description:* The students of the GTI batch 2020/21 did create their first prototypes and met with the global community for the first time after the kick-off event to present first insights and prototypes, spark discussions with the corporate liaisons and network with the other university students. The event was attended by students and teaching staff from KIT Karlsruhe, KIT Japan, Linköping University and Warsaw University. In addition, many of the corporate partners joined to see the student teams present the current status of the projects.

**Outlook**

The chair has already planned many activities for the upcoming year of which many are open to the public. We look forward to welcoming you to one of our many events. Furthermore, the chair regularly hosts research-oriented events (tracks/mini-tracks/conferences) that allow us the opportunity to learn and discuss our findings with the community.

**AMCIS Track - Digital Agility and Digital Innovation Units**

*Date:* 5-7 August 2021, Montreal, Canada  
*Track Chairs:* Prof. Dr Falk Uebernickel, Hasso Plattner Institute, Dr Marta Caccamo, Jönköping International Business School  
*Description:* The mini track offers a stimulating forum where researchers and practitioners, who are investigating the field of „digital agility“ in close relationship with Digital Innovation Units can present and discuss recent research results on a wide range of topics, in addition to exchanging ideas, experiences and challenging problems. We are looking for qualitative and quantitative contributions.

- Digital Innovation Units (as an expression of digital agility)  
- Innovation management practices in digital innovations units  
- The interlink between digital agility and digital innovation  
- Skills and capabilities for digital agility in Digital Innovation Units

**SUGAR+ Winter Presentations**

*Date:* 08.03.2021  
*Location:* Karlsruhe, Germany or online  
*Description:* Within the Global Team-Based Innovation course students from different universities meet with their corporate partners to present their project status and also to show developed prototypes.
SUGAR EXPO  
*Date:* 02.-06.06.2021  
*Location:* San Francisco, USA  
*Description:* The Sugar Expo in San Francisco is one important highlight for our students that take part in the Global Team-Based Innovation projects. One last time all students from partner universities around the world and also many corporate partners participate to enjoy the final results of the student projects.

SUGAR+ Final Presentations  
*Date:* 21.06.2021  
*Location:* Potsdam  
*Description:* The Sugar Final Presentations mark the end of an insightful journey. Together with their corporate partners and students from other universities, we want to celebrate the results of the projects and the work of the students at the Hasso Plattner Institute.

SUGAR+ Global Kick-Off  
*Date:* 21.10.2021 - 27.10.2021  
*Location:* Kyoto, Japan  
*Description:* The Sugar Global Kick-Off (GKO) meeting in Kyoto marks the start for a new class of GTI students from HPI. It's the first opportunity for the students to connect with their global partner team and also with many different corporate partners from different areas of the world. Thus, the event aims to create an inspiring atmosphere to Kick Off the projects for the year.

SUGAR+ Fall Presentations  
*Date:* December  
*Location:* Potsdam, Germany  
*Description:* The Sugar Fall Presentations present the first meeting where students present their findings from an extensive analysis of the need finding phase of their project.