19th Open and User Innovation Conference

Book of Abstracts

June 20-21, 2022

Virtual

ETH zürich

Proceedings of the 19th International Open and User Innovation Conference

Virtual, June 20-21, 2022

Organized and edited by

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Co-created by

You – OUI 2022 participants from all over the world

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Table of contents

About OUI 2022

Conference Platform Information

The 19th International Open and User Innovation Conference will be held virtually on June 20-21, 2022 via the Whova Platform.

Conference platform: https://whova.com/portal/webapp/ouico_202206/

Access to the Whova conference platform

- To access the conference platform after registration, you need to set up an account on Whova. Go to "Sign up here," enter the e-mail used for registration and create your password (you do not receive any passwords by email).
- The platform is accessible through the browser-based web app. Downloading the Whova app is not mandatory.
- For more information on the platform, consult the user guide or the Q&A.
- If you experience technical issues, please contact support@whova.com.

Conference agenda

- The conference will take place on Monday, June 20, from 2:30-8:35 pm CET and Tuesday, June 21, 2022, from 2:30-7:40 pm CET.
- You can create your personal agenda by selecting sessions from the complete conference agenda.
- All sessions run through live Zoom sessions accessible only through the conference agenda (join by Zoom client or browser). We do not send you any additional Zoom links by email. The Zoom links will become available shortly before the session, so you might still see some sessions without any links right now. Once the session goes live, you can join via the respective links in the session details.
- OUI2022 is a live event, and we do not record any sessions.
- Some presenters of the parallel paper sessions may upload their paper or presentation in the «Resume» section on their Whova profile – if not, contact them directly to learn more about their research!

Community

- We will award the five most active members a prize at the end of the conference!
- Complete your profile so others can learn more about you.
- You can get in touch with attendees through personal messages and in four speednetworking sessions.
- To post announcements such as conferences, new articles, or job openings, go to the community board.

The OUI Conference Series and the OUI Society

The International Open and User Innovation Conference is the leading academic conference on Open and User Innovation. Researchers from various disciplines (such as innovation management, strategic management, organization design, marketing, intellectual property right management, entrepreneurship, and public policy) meet annually to exchange recent research findings and plans related to open and user innovation.

The conference started as a small workshop, organized by Eric von Hippel and Nik Franke at WU Vienna, in 2003, and grew into its current form, with the later founded OUI Society as its official organizing body. The OUI started when ten academic colleagues discovered their shared interests in open source and user distributed innovation activities. These research topics were emerging in the early 2000s – but scattered in different fields. We decided that we needed a common annual meeting – a common intellectual home – to help us share our learnings. Eventually, we thought, our shared interdisciplinary research focus and work would create the core of a new field, and/or it would merge back into and enrich existing fields. Either way, it was clear that, to build our learnings effectively, we needed a place of our own.

The core activity of the OUI Society to date consists of a major academic conference each summer, the OUI. Other OUI activities build upon the connections made and ideas exchanged at the summer meetings and are generally local and informal. The meeting host, the location, and the exact meeting dates change from year-to-year and are announced annually. These days, about 200-300 academics and PhD students attend each annual OUI meeting. About 50% of these individuals are regular attendees, and about 50% are newbies. We warmly welcome both, as we build our OUI research and the OUI field together.

Source: OUI Society

Past OUI Conferences

2021: RWTH Aachen University, June 21-22 (digital edition). Organizers: Kathleen Diener, Patrick Pollok, Frank Piller

2020: RWTH Aachen, June (cancelled due to a global pandemic; an open digital community meeting "OUI 2020 Keep in Touch" was hosted on September 16, 2020). Organizers: Kathleen Diener, Patrick Pollok, Frank Piller

2019: Utrecht University, The Netherlands. July 8-10. Organizers: Jeroen de Jong, Ellen Moors, Wouter Boon, Brita Schemmann, Max Mulhuijzen, and Lara Spaans

2018: Stern School of Business, New York University. August 6-8. Organizers: Natalia Levina, Hila Lifshitz-Assaf, Katherine Strandburg

2017: University of Innsbruck, Austria. July 10-12. Organizers: Eric von Hippel, Karim Lakhani, Johann Füller & Simon Fuger

2016: Harvard Business School, Boston, Massachusetts. August 1-3. Organizers: Carliss Baldwin, Karim Lakhani, Stefan Thomke & Eric von Hippel

2015: Católica Lisbon School of Business and Economics, Lisbon, Portugal. July 13-15. Organizers: Pedro Oliveira, David Patient, Helena Canhão, Leid Zejnilovic, Pierre Gein & Celine Abecassis-Moedas

2014: Harvard Business School, Boston, Massachusetts. July 28-30. Organizers: Carliss Baldwin, Karim Lakhani, Stefan Thomke, Eric von Hippel & Benjamin Mako Hill

2013: University of Brighton, Brighton, United Kingdom. July 15-17. Organizers: Stephen Flowers, Georgina Voss, Jose Christion, Eric von Hippel

2012: Harvard Business School, Boston, Massachusetts, United States. Organizers: Carliss Baldwin, Karim Lakhani, Stefan Thomke

2011: WU Vienna, Vienna, Austria. Organizers: Nik Franke, Christopher Lettl

2010: Massachusetts Institute of Technology, Cambridge, Massachusetts, United States

2009: TU Hamburg, Hamburg, Germany. Organizer: Cornelius Herstatt

2008: Harvard Business School, Boston, United States. Organizers: Carliss Baldwin, Karim Lakhani, Stefan Thomke

2007: Copenhagen Business School, Copenhagen, Denmark. Organizer: Lars Bo Jeppesen

2006: TU Munich, Munich, Germany. Organizer: Joachim Henkel

2005: Massachusetts Institute of Technology, Cambridge, Massachusetts, United States. Organizer: Eric von Hippel

2004: Massachusetts Institute of Technology, Cambridge, Massachusetts, United States. Organizer: Eric von Hippel

2003: WU Vienna, Vienna, Austria. Organizers: Nik Franke, Eric von Hippel

Upcoming OUI Conferences

2023: Kühne Logistics University, Hamburg, Germany. Organizer: Christina Raasch

2024: Stay tuned!

Conference Tracks and Chairs

Tracks	Plenaries	Paper Session Chairs
Track A **Problem Solving** Track convener: **Eric von Hippel** (MIT Sloan)	**Nik Franke** (Vienna University of Economics and Business) **Shannon Heald** (University of Chicago) **Eric von Hippel** (MIT Sloan) Chair: **Georg von Krogh** (ETH Zurich)	**Nik Franke** (Vienna University of Economics and Business) **Shannon Heald** (University of Chicago) **Eric von Hippel** (MIT Sloan)
Track B **Open and User Innovation Processes** Track convener: **Carliss Baldwin** (Harvard Business School)	**Carliss Baldwin** (Harvard Business School) **Jana Gallus** (UCLA Anderson) **Pamela Hinds** (Stanford University) Chair: **Ruth Stock-Homburg** (TU Darmstadt)	**Tom Grad** (Copenhagen Business School) **Cornelius Herstatt** (Hamburg University of Technology) **Christian Lüthje** (Hamburg University of Technology) **Frank Piller** (RWTH Aachen)
Track C **Governance and Societal Challenges** Track convener: **Pedro Oliveira** (Copenhagen Business School)	**Hila Lifshitz-Assaf** (New York University) **Pedro Oliveira** (Copenhagen Business School) **Robert Riener** (ETH Zurich) Chair: **Thomas Maillart** (University of Geneva)	**Johann Füller** (Hyve) **Pedro Oliveira** (Copenhagen Business School) **Katherine Strandburg** (New York University) **Andrew Torrance** (University of Kansas)

Conference Program

Monday, June 20, 2022

14:30-14:45 CET / 8:30-08:45 EDT
Welcome to OUI 2022

14:45-15:15 CET / 8:45-9:15 EDT
Speednetworking

5 min break

15:20-16:20 CET / 09:20-10:20 EDT
Plenary Session A: Problem Solving

Nik Franke (WU Vienna)
Shannon Heald (University of Chicago)
Eric von Hippel (MIT Sloan)
Chair: **Georg von Krogh** (ETH Zurich)

5 min break

16:25-17:40 CET / 10:25-11:40 EDT
Parallel Paper Sessions

1A **AI-assisted Idea Search**
Chair: Nik Franke (WU Vienna), co-chair: Klaus Marhold (WU Vienna)

1B **Open Innovation and Crowdsourcing Frontiers**
Chair: Christian Lüthje (TUHH), co-chair: Emil Herrling (TUHH)

1C **Open Innovation and Governance**
Chair: Andrew Torrance (University of Kansas)

5 min break

17:45-19:00 CET / 11:45-13:00 EDT
Parallel Paper Sessions

2A **Crowdsourcing Processes**
Chair: Nik Franke (WU Vienna), co-chair: Jakob Pohlisch (WU Vienna)

2B **User Innovation Frontiers**
Chair: Cornelius Herstatt (TUHH), co-chair: Moritz Göldner (TUHH)

2C **Ecosystem Orchestration and Platforms**
Chair: Johann Füller (Hyve)

5 min break

19:05-20:05 CET / 13:05-14:05 EDT
Plenary Session B: Open and User Innovation Processes

Carliss Baldwin (Harvard Business School)
Jana Gallus (UCLA)
Pamela Hinds (Stanford University)
Chair: **Ruth Stock-Homburg** (TU Darmstadt)

20:05-20:35 CET / 14:05-14:35 EDT
Speednetworking

Tuesday, June 21, 2022

14:30-14:40 CET / 8:30-08:40 EDT

Introduction to the day

14:40-15:40 CET / 08:40-9:40 EDT

Plenary Session C: Governance and Societal Challenges

Hila Lifshitz-Assaf (New York University)
Pedro Oliveira (Copenhagen Business School)
Robert Riener (ETH Zurich)
Chair: **Thomas Maillart** (University of Geneva)

15:40-16:10 CET / 9:40-10:10 EDT

Speednetworking

5 min break

16:15-17:30 CET / 10:15-11:30 EDT

Parallel Paper Sessions

3A	**Problem-Solving** Chair: Eric von Hippel (MIT), co-chair: Ana Orelj (University of Iceland)	3B	**Dynamics of Innovation Frontiers** Chair: Tom Grad (CBS), co-chair: Carliss Baldwin (HBS)	3C	**UI in Healthcare and Crowdsourcing Science** Chair: Pedro Oliveira (CBS)

17:30-18:00 CET / 11:30-12:00 EDT

Speednetworking

5 min break

18:05-19:20 CET / 12:05-13:20 EDT

Parallel Paper Sessions

4A	**Idea Evaluation** Chair: Shannon Heald (UChicago), co-chair: Yena Kim (UChicago)	4B	**Open Source Frontiers** Chair: Frank Piller (RWTH Aachen), co-chair: André Amft (RWTH Aachen)	4C	**User Innovation, Social Welfare and Resilience** Chair: Katherine Strandburg (NYU), co-chair: Charles Weber (Portland State University)

5 min break

19:25-19:40 CET / 13:25-13:40 EDT

Closing and raffle draw

Abstracts of Presentations

Track A: Problem Solving

Session 1A: AI-assisted Idea Search
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Lead user innovation identification: Identifying current trends and future perspectives

Hüseyin Doluca (Augsburg University), Marcus Wagner (Augsburg University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Lead User identification, classifier combination, online communities, classification algorithms

The main objective of this study is to identify current trends and future perspectives as concerns classification algorithms in the context of lead user identification using online data sources. The conventional lead user method with screening and pyramiding lead users faces the challenge of being tedious and costly in identifying them as well as uncovering their innovation ideas, thus resulting in low acceptance (Brem et al., 2018). Based on this challenge and on the opportunities related to the pervasive use of the internet, new approaches of the lead user search and identification process have been proposed in literature. These approaches have in common that they make use of publicly available user-generated and online data sources such as subject-specific internet forums or social media platforms like Twitter. They differ in the classification algorithms being used to identify lead users and innovations. To name a few, qualitative data analysis using software such as MAXQDA and ATLAS.ti (e.g., Belz and Baumbach, 2010; Pollok et al., 2014), data mining techniques such as the (in machine learning widely used) C4.5 algorithm (Pajo et al., 2015), the random forest algorithm (Pajo et al., 2017; Yuan et al., 2017), the sequential minimal optimization algorithm (for support-vector machine learning classification) (Pajo et al., 2017) and network analysis techniques (Kratzer et al., 2016) have been previously used in the literature to search and identify lead users and innovations in online communities. Even though there is no universally optimal classifying algorithm, findings from other disciplines such as computer science show that there exist ways to increase classification accuracy by combining individual classifiers, among others. Thus, this research analyzes the applicability of findings from other disciplines, apart from management science, in the context of lead user and innovation identification using online data to enhance classification accuracy.

Session 1A: AI-assisted Idea Search
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Algorithmic interactions in open source work: Automation and augmentation

Maha Shaikh (King's College London), Emmanuelle Vaast (McGill University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Algorithmic interactions, open source work, augmentation and automation

This study examines the relationship between augmentation and automation in algorithmic interactions. While past research has argued that augmentation is the better, more human-centric approach that should be adopted in work settings, we show that both augmentation and automation act together. Our focus on algorithmic interactions designed, initialized, and employed in open source work allows us to map the performance of algorithms. Algorithms are essential in open source because they remedy concerns not completely addressed by parallel development or modularity. We examine the Linux Kernel case that reveals how algorithmic interactions simultaneously automate and augment open source through three processes of managing, organizing, and supervising work. Our qualitative study theorizes how algorithmic interactions are established and intensify through these processes that work together to facilitate development. Developers draw on algorithmic interactions to navigate which tasks are better automated and which would be effective if augmented. We find that automation leads to augmentation and vice versa. This study adds to scholarship on the relationship between automation and augmentation, revealing that it is not a linear process but instead a reciprocal process of augmentation and automation.

Session 1A: AI-assisted Idea Search
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Processes and challenges of artificial intelligence augmented decision-making in nascent firms: An action design research study

Savindu Herath (ETH Zurich), Yash Raj Shrestha (ETH Zurich), Nina Geilinger (ETH Zurich), Georg von Krogh (ETH Zurich)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Artificial intelligence, Decision-making, Action Design Research

Recent technological breakthroughs in Artificial Intelligence (AI) have raised great expectations from business leaders and managers and firms are expected to invest north of $98 B in 2023. Extant research has identified AI capability for augmenting and automating various decisions within firms. There is an emerging consensus that AI technologies provide fast, cheap, and low-cost predictions which are expected to enhance the decision quality within firms. Despite that, much of extant research remains conceptual in its examination and a few empirical exceptions that exist remain confined to large incumbent firms. We do not yet possess a holistic understanding of how small firms whose strategic choices are constrained by resource scarcity and who operate under uncertain markets implement AI-augmented decision-making (AIADM) within their business processes and the trade-offs they face. Without effective navigation of those trade-offs, small firms might not be able to successfully capture value from AI. Attending this gap, through an action design research (ADR) study with a nascent firm operating within the fashion industry, we develop, design, and deploy AIADM. Our interventions and detailed case studies illustrate novel insights into how AIADM unfolds in practice. In contrast to extant research, we find that the process of AIADM in nascent firms consists of 4 phases: Genesis, Onboarding, Auditing, and Sustaining. The challenges arising in these phases affect other phases resulting in a connected, iterative, and complex network as the firm extends AIADM use cases.

Session 1A: AI-assisted Idea Search
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

AI as an open innovation partner: Augmenting innovation teams' creativity through transformer-based language models

Sebastian G. Bouschery (RWTH Aachen University), Vera Blazevic (Radboud University Njmegen), Frank T. Piller (RWTH Aachen University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Hybrid Intelligence, Artificial Intelligence, Creativity, Open Innovation, Innovation Teams

AI plays an increasingly important role in accessing external knowledge and leveraging it to foster firms' innovative performance. As innovators face operating in increasingly complex environments, AI offers a scalable solution to making extant external knowledge usable for innovation teams. In this paper, we explore the role of AI and especially transformer-based language models as an open innovation partner. In an experimental setting, we look at the interplay of humans and AI in hybrid innovation teams tasked with generating creative output in idea generation processes. We investigate how AI can augment human creative abilities by incorporating knowledge from vast external knowledge bases, how humans respond to such AI-generated ideas, what tensions might arise and how we can best leverage humans' and AI's complementary capabilities. By highlighting how AI can help to integrate external knowledge into firms' innovation processes, we provide the basis for re-evaluating extant open innovation literature in the context of AI.

Session 1A: AI-assisted Idea Search
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Applying NLP models for solution search: A systematic literature review

Julian Wahl (University of Innsbruck)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Natural language processing, Solution search, Systematic literature review, AI-based innovation management

The application of natural language (NLP) methods is becoming increasingly popular to find solutions to innovation problems, and the capabilities of NLP methods and algorithms are advancing rapidly. Different approaches are applied in different innovation contexts, leading to an overlapping and fragmented research landscape. In response, this study presents a systematic literature review to better understand how NLP methods can help innovators in their search for solutions. It analyses 141 articles and discusses the main features, benefits and limitations of searching solution-related textual data, e.g. in patent databases, online innovation communities, social media or e-commerce platforms, with the help of NLP. The first preliminary findings reveal a wide variety of NLP methods for different innovation use cases, but also a lack of methodological rigour in applying and validating the powerful methods and algorithms. This study aims to contribute to research on problem-solving in the innovation context by developing a framework that highlights previous achievements, current challenges and future research opportunities in applying NLP to seek innovative solutions. It should also include a step-by-step guide on how to keep up with advances in NLP models and effectively identify valuable use cases in innovation research and practice.

Session 2A: Crowdsourcing Processes
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Does framing an innovation challenge as communal vs. competitive differentially affect engagement?

Sandy Campbell (University of California Berkeley), Jana Gallus (University of California Los Angeles)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Innovation, Gender, Framing

Prototypical stereotypes of men and women suggest that men are more agentic, and thus more likely than women to engage in competition, whereas women are more communal (Eagly & Steffen, 1984). Extant literature corroborates these gender role stereotypes, showing that men tend to self-select into competition whereas women shy away (Niederle & Vesterlund, 2007), and that women negotiate better when they negotiate on behalf of someone else (Bowles, Babcock, and McGinn, 2005). Our research examines how this knowledge on gender role stereotypes can be leveraged in innovation. If women are indeed more communal, will they engage more when innovation challenges are framed as community oriented, rather than as competitive? To answer this question, we partner with a London-based corporation and run a pre-registered field experiment on an innovation challenge prize targeting sub-Saharan African innovators (N = 7984 innovators). We manipulate the framing of the initial messages sent, describing the challenge as either “entering a competition” or “joining a community of peer innovators.” We examine whether framing the challenge as communal versus competitive leads to differential engagement overall, and additionally critically focus on how framing interacts with gender.

Session 2A: Crowdsourcing Processes
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Serial solvers in crowdsourcing contests: Does success eat diversity?

Patrick Pollok (RWTH Aachen University), Marc van Dyck (RWTH Aachen University), Dirk Lüttgens (RWTH Aachen University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Open innovation, crowdsourcing, fixation, creativity

Firms increasingly draw to crowdsourcing to find novel solutions for internal problems but designing such contests is a difficult task. Intermediary contests that administer crowdsourcing contests nurture a pool of solvers who often repeatedly attempt to propose ideas. Prior research delivers mixed results how past success impacts future success for these serial solvers. While solvers should provide fresh ideas to organizations, they generate less diverse ideas and instead propose ideas that are similar to their previous ideas to increase their chance of success. However, this fixation leads to negative effects of past success. Other studies suggest that fixation effects are mitigated if the challenge changes as it is more difficult to reuse solutions. An analysis of a panel data set with 1,603 proposals by 329 serial solvers confirms that past success negatively affects future likelihood of success. Surprisingly, mitigation of fixation by proposing ideas to new categories does not attenuate the negative effects of past success. On the contrary, proposing in the same category increases the likelihood of success. Our results stimulate the discussion related to positive feedback effects and fixation in crowdsourcing contests which have received little attention in innovation management research.

Session 2A: Crowdsourcing Processes
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Rejection transparency and the dilemma of well-designed ideation contests

Christopher Kelch (Hamburg University of Technology), Christian Lüthje (Hamburg University of Technology), Daniel Ehlebracht (University of Cologne)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Crowdsourcing, Ideation contests, Rejection, Transparency, self-serving bias

Ideation contests are a widely accepted and proven tool for generating promising product and service ideas (Wooten and Ulrich 2017). At the same time, they are often utilized to achieve other implicit marketing goals, like brand attention, WOM or long-term customer relationships (Djelassi, 2013). The simultaneous achievement of both objectives is somewhat questionable, considering the basic principle of contests—the tournament idea. On the one hand, a well-designed contest could lead to several thousand ideas. On the other hand, many submissions also equal a lot of rejections, which might lead to frustration, disappointment, and anger. Transparency regarding the decision for or against a submitted idea plays a leading role in this context. A high degree of transparency can lead to better comprehensibility of the decision, higher perceived procedural fairness, and a higher feeling of appreciation towards the submitters (Franke et al., 2013; Piezunka and Dahlander, 2019). At the same time, it triggers the self-serving bias and leads to an attribution of failure to the self, which reinforces the negative effects of rejections (Campbell and Sedikides, 1999). The resulting dilemma, whereby promised transparency leads to more participants but at the same time causes more significant damage to the company's image, is the focus of this study. In addition, the cognitive processes that lead to the adverse effects are illuminated. This study helps to understand the negative consequences of successful crowdsourcing contests and sheds light on how these can be mitigated (Steele, 1988). Our findings suggest that only if this mitigation succeeds and the negative consequences do not overcompensate the benefits of the ideas received, ideation contests can establish themselves as a successful long-term tool in the open innovation world.

Session 2A: Crowdsourcing Processes
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Crowdsourcing contests: How does socio-economic background influence contributors' problem-solving effort?

Shivani Malhotra (National Research University-Higher School of Economics), Anja Tekic (HSE University, Graduate School of Business (Moscow))
First Author = Presenter

Full Presentation (10 minutes)

Keywords: National culture, Economic development, Crowdsourcing platforms, problem-solving skills

With the motivation and endless competition of innovating their business through product or service innovation, an increasing number of companies are jumping towards crowdsourcing platforms to find unique solutions to their various problems related to product development and innovation. While previous research primarily focuses on understanding the role of diversity and its influence on the selection of individuals, in various Organizational settings. However, the limited understanding of crowd and how the crowd works is resulting in missing out on greater benefits by most of these crowdsourcing platforms. As Jeff Howe says, "Not everyone in the crowd wants to make silly videos", hence, the understanding of crowd will help crowdsourcing platforms ensure that ideas converge on an appropriate solution. Using neo-configurational approach, this research aims to understand the socio-economic profile of the contributors participating in HyveCrowd (a crowdsourcing platform). As crowd is the means to generate ideas in crowdsourcing contests; my research argues that these platforms need to embrace and fully understand the formation of its crowd by understanding the socio-economic factors, elements that have contribution in forming the individual's cognitive abilities which help contributors gain their problem-solving skills. In this study, fuzzy-set Qualitative Comparative Analysis (fsQCA) is used on the set of contributors' data collected from HyveCrowd, their socio-economic background and problem-solving effort in crowdsourcing contests. This research will contribute to previous studies in relation to understanding the role and influence of diversity on contributors' problem-solving skills in open call platforms, with a focus on combinational effect of socio-economic factors.

Session 2A: Crowdsourcing Processes
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Self-Assessment, self-selection and the success of crowdsourcing contests

Caroline Fabian (WU Vienna), Nikolaus Franke (WU Vienna), Jakob Pohlisch (WU Vienna)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: crowdsourcing, self-selection, misjudgment bias, overconfidence

The proposed study aims to investigate how self-assessment affects self-selection participation decisions in crowdsourcing contests. The success of a crowdsourcing contest is based on the assumption that potential solution providers know better about their abilities than the crowdsourcing host, which favors self-selection participation decisions over external selection decisions. However, previous empirical research suggests that high potential candidates self-select out of such contests, resulting in inefficiencies in self-selection decisions and a significant loss of potential. We introduce the systematic misjudgment bias, which can manifest itself in either over- or underestimation of one's skills, as an explanation for an inefficient allocation of potential problem solving agents. In an experimental design, we aim to investigate whether systematic misjudgment affects the self-selection in participation decisions, what proportion of the potential misallocation can be attributed to the systematic misjudgment and what can be done to mitigate this effect. We challenge one of the main arguments for the success of crowdsourcing and therefore contribute to our understanding of self-selection mechanisms in crowdsourcing contests as well as demonstrate how to diminish inefficiencies in these self-selection decisions. Furthermore, the findings provide implications for managers and human resources departments on how to attract the right people for the task or job.

Session 2A: Crowdsourcing Processes
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Towards a configurational perspective on crowdsourcing campaign success

Christian Garaus (University of Natural Resources and Life Science, Vienna), Marion Garaus (Modul University Vienna), Denis Helic (Graz University of Technology)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Crowdsourcing, Incentives, Call for Submissions, Qualitative Comparative Analysis, Configurations

The question, of when crowdsourcing campaigns are successful and when they are not is important for research and practice alike. Motivation has been identified as a crucial factor and several studies have already investigated how different incentives relate to crowd contributors' motivation to submit their ideas. Most of this research has examined the effects of antecedents of motivation to participate in crowdsourcing campaigns independently. While these studies have allowed for significant progress in the field's understanding of the phenomenon, studying the isolated effects of these variables inevitably leaves unexplained variance that may be explained by the variables' interdependencies. Particularly higher-order (more than two- or three-way) interactions and different equally-successful pathways to the same outcome have not been identified yet. Our project aims at uncovering multiple configurations of antecedent variables using fuzzy-set Qualitative Comparative Analysis (fsQCA). In a first step, we will explore the effects of different pecuniary and non-pecuniary incentives on the quantity and quality of submissions in a set of 250 crowdsourcing campaigns of an Austrian platform provider. We will also lay a focus on identifying configurations for different types of competitions (particularly whether they are conducted in the context of climate change). In a second step, we will test the recognized patterns in a large crawled data set from international crowdsourcing contest providers. Our goal is to develop a configurational perspective that offers a finer-grained understanding of crowdsourcing campaign success. From a theoretical perspective, uncovering the different pathways to success would allow for a finer-grained understanding of the crowdsourcing phenomenon. The practical implications include the recognition by managers that different configurations of incentives may attract a high quantity and/or quality of submissions. They may find that a single condition (e.g., substantial prize money) may neither be necessary nor sufficient for success.

Session 2A: Crowdsourcing Processes
Chair: Nik Franke

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Identifying the solvers' journey in an open ideation contest

Hanif Adinugroho Widyanto (Radboud University), Bas Hillebrand (Radboud University), Vera Blazevic (Radboud University), Paul H. Driessen (Radboud University)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Ideation Contest, Open Innovation, Ideation Journey, Responsible Innovation, Sustained Relationship

Organizations increasingly employ open ideation contests to collaborate with external stakeholders (solvers) to solve a particular problem and identify new opportunities, particularly during the 'fuzzy front-end' of new product development. While it is in the best interests of the idea-seeking organizations (seekers) to ensure that they can forge a constructive relationship with the solvers in ideation contests, little is known about how solvers experience ideation contests through the different stages of ideation contests (i.e., pre-ideation, ideation, and post-ideation). Inspired by the notion of 'customer journey' in the marketing literature, this study will investigate the solvers' journey in ideation contests (ideation journey) and how ideation contests should be devised to manage a sustained relationship with the solvers. This study will embark on a comprehensive literature review on ideation contests and open innovation, followed by a netnographic study on selected ideation challenges. Finally, in-depth interviews and focus group discussions with solvers will be carried out to investigate how solvers move through the different stages of ideation contests. The outcome of this proposed study is expected to provide an in-depth examination of how organizations should innovate responsibly with stakeholders through ideation contests.

Session 3A: Problem-solving
Chair: Eric von Hippel

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Sequential knowledge search: A dynamic perspective on the effect of knowledge generality in sequential innovations

Alessio Delpero (WU Vienna)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: sequential knowledge search, value of innovation, knolwedge generality, organizational learning, sequential innovations

Firms often rely on new knowledge that resides outside their boundaries to solve problems and innovate. Scholars tend to conceptualize a firm's search for knowledge in a new knowledge domain as a one-time effort. However, knowledge search is in most cases a sequential process and the implications of the attributes of the searched knowledge in a new domain may change in nuanced yet relevant ways as a firm keeps searching for knowledge in that domain. For instance, when considering the attribute of generality of a knowledge element drawn from an external domain, the effect of generality on the value of the innovation the searching firm generates changes according to the position the element occupies in the firm's sequential search. Whereas less-general knowledge drawn from a new knowledge domain limits negative transfer learning and fosters the value of the innovations, the positive effect of a lower generality diminishes as the firm keeps searching the same domain and the overall level of negative transfer learning diminishes. By contrast, even though more-general knowledge harms the value of the innovations based on that knowledge, it fosters the firm's absorptive capacity to draw subsequent knowledge from an external domain and enhances the value of innovations generated using the subsequently drawn knowledge. A quantitative analysis of Research in Motion's patent history, based on a shock deriving from the Leahy-Smith America Invents Act corroborates these findings. By challenging the assumption that knowledge search in a new domain is a one-time effort, this study adds a dynamic perspective to the literature on knowledge search. The theoretical and empirical analyses hint that, while initiating a search with a knowledge element that is less-general creates higher immediate value for an innovating firm, initiating with an element that is more-general creates higher value at subsequent stages.

Session 3A: Problem-solving
Chair: Eric von Hippel

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Tapping the wisdom of the crowd within us: EEG research shows that individuals can predict market-level outcomes

Shannon Heald (University of Chicago), John P. Veillette (UChicago), Katherine S. Reis (UChicago), Benjamin Wittenbrink (UChicago), and Howard C. Nusbaum (UChicago)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Crowdsourcing, Market Prediction

Can the brain tell us something about the market that a focus group can't? While consumers are not consciously aware of the snap judgments they make about products, their pre-deliberative thoughts may disproportionally influence market outcomes. Here, I report on a project where we used EEG to tap into these thoughts by looking at consumer brain activity (n=18) in order to determine if such activity can be used to forecast market outcomes significantly above chance, even when individual buying behavior fails to. Specifically, consumers in our study were given an endowment to fund projects on Kickstarter or to take home. Brain activity was recorded with passive scalp electrodes while consumers viewed and made decisions about which projects to fund or not. Using machine learning, we demonstrate that the neural activity observed during consumer decision-making can be utilized to predict above chance the success of products in large, online marketplaces.

Session 3A: Problem-solving
Chair: Eric von Hippel

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Disambiguating effects of knowledge versus demographic "diversity" in the innovation process: Field experimental evidence from a collaborative crowdsourcing platform

Nilam Kaushik (IIM BANGALORE), Kevin Boudreau (Northeastern University & NBER)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Diversity, problem-solving, crowdsourcing, field experiment, teams

Recent research and popular debate suggest that there can be a positive relationship between diversity, or differences in team member characteristics, and performance in novel problem-solving. In this study, we take steps to disambiguate the causal effects of knowledge diversity versus demographic diversity (gender, race, age) on innovation performance. We report on a field experiment in which 834 adults engaged in an inherently multi-disciplinary product development problem on a crowdsourcing platform. Team composition was randomly assigned, as was the degree to which teams were primed to engage in a collaborative orientation and work style. We find that performance effects of knowledge and demographic diversity are—to a striking degree—statistically separate, independent, and qualitatively distinct. Consistent with prior literature, the results indicate largely distinct implications of diversity on knowledge integration versus group problem-solving processes. Apart from this main goal of disambiguating diversity effects most broadly, the study contributes a series of results on causal effects of knowledge, gender, race, and age diversity in a field experimental context.

Session 3A: Problem-solving
Chair: Eric von Hippel

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Exploring the role of human techniques for innovation via a process based modular analysis

Samina Khan-Sherwani (WHU - Otto Beisheim School of Management)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Problem-solving, modularity, techniques, humans, tacit knowledge, user innovation, practice theory

When thinking about the most central innovations to humankind, one immediately thinks about the fire or the wheel. What these innovations have in common is that they result from an interplay of human techniques and artefacts. Modern examples also highlight their interdependence as, for instance, the discovery of minimally invasive surgery involved smaller tools as well as certain hand movements to minimise operation traumas. Prior research has focused more on the deployed artefacts during the innovation process or the finished product innovations at the end of it and less is known about the involved techniques as part of a user's system of use. However, techniques are an important factor for the innovation to succeed and have been used in many industries ranging from medical equipment to sports as humans continuously use them to shape the outcome and make the best use of the artefacts at hand. Techniques and artefacts, thereby, also influence and change each other over time which shapes the entire innovation process. Our research focus is on how techniques influence the innovation process and their importance to the final innovations. Following an explorative research design, we use video data from YouTube cooking tutorials to investigate the present techniques. We hereby build a theory about the relevance of techniques for the innovation process. Drawing on the literature of user innovation and problem solving, this research also contributes a novel perspective on user innovation that hints at the central role of humans for innovations and why they will remain an important factor to consider in the future.

Session 3A: Problem-solving
Chair: Eric von Hippel

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

User innovation by lead users in retail stores

Yuya Watanabe (Hosei University)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: New Product Development, Embedded Lead Users, User Innovation

The existence of lead users, who create commercially attractive innovations as users rather than manufacturers, has become apparent. However, since lead users are generally outside companies, it is difficult for a company to utilize them on a continuous basis. On the other hand, it has become clear that there are lead users inside companies with regard to the categories of products and services that they provide. These lead users inside companies have both characteristics as lead users and as employees, and exist in a variety of occupations. In this study, we focus on lead users in retail stores, and reveal that they contribute to innovation by proposing solutions that combine their own needs with those of customers. Using an apparel retailer that develops its own products as a sample, we will conduct an idea contest among its store employees. The survey data will be used to test the hypothesis. We will demonstrate that lead users, who are retail store employees, contribute to the development of new products and identify the factors that contribute to this. Academically, it will contribute to extending lead user research, and practically, it will help companies make better use of their employees.

Session 3A: Problem-solving
Chair: Eric von Hippel

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Problems as opportunities: A global patent network approach

Andrew Torrance (University of Kansas School of Law)
First Author = Presenter

Full Presentation (10 minutes)

Patents are not merely isolated descriptions of inventions deemed new and useful enough to warrant government imprimatur. On the contrary, patents frequently cite other patents and references (e.g., scientific articles, webpages, datasets) and therefore are more than mere collections of isolated documents. World-wide, tens of millions of patents are interconnected by hundreds of millions of citations. Patents and the citations that interconnect them form a vast network, with patents as "nodes" and citations as "links" among them. This "patent citation network" represents the aggregation of hundreds of millions of deliberate choices individual patent applicants, or patent attorneys or agents representing them, and patent examiners have made about how to situate their inventions in relation to others' inventive ideas. The structure of this network contains a wealth of information about the patents, and the communities within which the patents reside. We use eigenvector centrality and hierarchical clustering methods to evaluate the patent citation network of all patents worldwide found in the spring 2022 PATSTAT database. Patent importance is measured as a property of a patent's position within this worldwide patent network. One feature of this worldwide patent network is its usefulness for identifying and solving problems. The network is agnostic as to the meanings of misleading words and phrases, which can be especially misleading in patents given the ability of inventors to redefine words' and phrases' meanings at will; instead, it focuses on underlying inventive concepts. Using the worldwide patent network and its focus on inventive concepts, patents with similar concepts may be identified, the inventive pathways by which inventive concepts evolved over time may be identified and mapped, and disparate inventive concepts may be combined together to yield novel solutions to problems. In addition to describing our novel methods, we offer several specific examples of the power the worldwide patent network approach holds for enhancing problem solving.

Session 4A: Idea Evaluation
Chair: Shannon Heald

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Social influence on idea development in online communities

Alexander Kock (Technische Universität Darmstadt), Christoph Resch (TU Darmstadt)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: social influence, online commuity, open-source software, idea development

When individuals freely reveal ideas in online communities, some resonate in the community, and volunteers start contributing, reporting issues, and suggesting ideas. These contributions aggregate to social influences pulling the development in the direction of their needs. Because idea developers face multiple social influences, these influences may affect their decisions about development directions. We draw on social impact theory to understand this critical process that may affect potential innovations and their success or failure. We hypothesize that social impact theory's three factors—strength, immediacy, and number—have direct and complementary effects in online communities. The special context of online communities opens the space for theorizing about additional moderating factors. To test our hypotheses, we collected a dataset of a million timestamped textual posts from GitHub, the leading open-source software hosting platform. After applying textual analysis to identify latent social influences, we find support for the social impact theory in online communities and one newly introduced moderator. The impact of social influences on the development direction increases with the combination of higher strength, immediacy, and number of influence sources. This effect is further moderated by project maturity, crowding, the distance of an influence to the focal project, and the persistence of the influence. The results contribute to our understanding of how an online community shapes innovation trajectories. They also extend social impact theory to a new context and contribute to recent work in social network literature on complex interactions of network features.

Session 4A: Idea Evaluation
Chair: Shannon Heald

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Phenomenon-based theorizing on machine learning in organizations: Exploring the role of problem formulation and theories

Jermain Kaminski (Maastricht University), Özgür Kartal (Maastricht University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: problem formulation, problem-solving, machine learning, theory building

We investigate the role of problem formulation and theories when organizations use Machine Learning (ML) to solve problems. A problem formulation is a fundamental condition to dive into the work of problem-solving (Von Krogh, 2018). Theories provide a framework for the problems to be solved and defines a set of problems that are believed to create expected value when solved. Theory thus guides the organization's problem formulation and problem-solving efforts (Felin & Zenger, 2016, 2017; Felin, Gambardella, & Zenger, 2020). For organizations, the process of problem formulation in ML projects can be difficult because not all relevant problem-specific and contextual information is available (Passi & Barocas, 2019). This poses the risk that the developed solution does not fit the targeted context and consequently leads to unpredictable consequences (Von Hippel & Von Krogh, 2016). We (1) provide insights into the extent to which problem formulation is relevant when organizations use ML to solve problems (Passi & Barocas, 2019; Von Hippel & Von Krogh, 2016), (2) we explore the extent to which theories support problem formulation in ML, i.e. the translation of higher-level business goals into executable problems (Felin & Zenger, 2016, 2017; Felin et al., 2020) and (3) we discuss to what extent ML can support building these theories (Shrestha, Puranam, & Von Krogh, 2021). We propose a problem-solving framework for ML that illustrates the relationships between need-solution, problem formulation and theory. Specifically, we show that (i) the need-solution for ML organizations is bi-directional: problem formulation is a preferred way to define ML pipelines, but the problem formulation is also neglected in certain situations and (ii) theories link need-solution pairs with or without the problem formulation. With this qualitative study, we extend the organizational-managerial literature on problem-solving by conducting qualitative interviews with different technical and non-technical ML actors in organizations.

Session 4A: Idea Evaluation
Chair: Shannon Heald

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

How does the focus of proactive behavior affect decentralized idea selection? A field experiment

Claus Schöttl (TUM), Christina Raasch (KLU), Tim Schweisfurth (UTwente), Christian Homma (Siemens AG)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Idea evaluation, internal crowdfunding, innovation

Idea evaluators in organizations need to consider a multiplicity of audiences and stakeholders when evaluating ideas, which requires them to focus on these stakeholders' needs and take their perspectives. In this paper, we argue that framing of the idea evaluation task can be a powerful tool to steer the evaluation process. Existing research has looked at how framing can affect a single idea's evaluation but has not investigated whether framing can affect the evaluation criteria underlying the evaluation process. We investigate whether framing idea evaluators in terms of benefitting stakeholders can change the outcome of the idea evaluation process in terms of the number and novelty of selected ideas. Specifically, we investigate whether evaluators change their idea evaluation criteria depending on whether they are being framed to take an pro-organizational focus in the idea evaluation process, a pro-social focus in the idea evaluation process, or a neutral focus in the idea evaluation process, and select more or less ideas or different ideas, respectively. To answer these questions, we conduct an explanatory RCT in a natural setting, in which a firm uses internal crowdfunding to generate and select ideas. During the idea generation phase, all 7,800 employees from the company's research department were invited to submit ideas. Subsequently, 510 employees evaluated the ideas by allocating a total budget of 500,000 Euros to one or more ideas. To test whether taking different audiences into account during idea evaluation changed the outcomes of the process, we randomly allocated evaluators to one of three intervention groups (pro-organizational (treatment 1) vs. pro-social (treatment 2) vs. control). We find significant differences between these groups in how they evaluate ideas.

Session 4A: Idea Evaluation
Chair: Shannon Heald

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Detecting novel and uncommon ideas with sentence-BERT: A way to expand the attention space of idea evaluators

Julian Wahl (University of Innsbruck), Thomas Ströhle (University of Innsbruck), Johann Füller (University of Innsbruck), Katja Hutter (University of Innsbruck)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: crowdsourcing, idea space, natural language processing, sentence-BERT, local outlier factor, novelty detection, outlier detection

Evaluators' abilities to recognize novel ideas in crowdsourcing contests are often constrained by limited cognitive capacities, social biases, and bounded views on possible solutions. Investigating the structure of emerging idea spaces is a promising way to analyse large sets of ideas and derive new objective insights for idea evaluation. In this study, we propose a new approach that combines sentence-BERT – a pre-trained contextual model for semantic text representation – with local outlier factor, a density-based outlier detection method. Thereby, we show a way to better capture novel and uncommon contributions among 581 crowdsourced ideas by analysing their semantic content. Our results show that particularly novel ideas have a hard time gaining approval in the investigated contest. Our approach presents a complementary AI-based tool to support evaluators in the identification of novel ideas and overcome challenges in the evaluation, appreciation, and selection of novel ideas in crowdsourcing contests and beyond.

Session 4A: Idea Evaluation
Chair: Shannon Heald

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Increasing consumer review usefulness: The role of reader-reviewer similarity

Richard Olbrecht (WU Vienna), Nikolaus Franke (WU Vienna), Peter Keinz (WU Vienna)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: User reviews, review usefulness, similarity, electronic word-of-mouth, decision making

Consumers increasingly make use of consumer reviews to decrease uncertainties with regard to product quality when buying products or services online. However, the high amount of available user reviews makes it increasingly difficult to find the most relevant reviews for individual consumers. This problem is caused by the high heterogeneity of reviewers that have differing preferences and aspiration levels. For example, two restaurants can offer similar food and have an overall rating of 4.5 stars (on a scale of 5), but still be very different: One restaurant offers quick take-away dinner, the other one offers fine cuisine. While one consumer will be fully satisfied with the first one because s/he is looking for value for money, another consumer will only be satisfied with the latter one because s/he expects a pleasant atmosphere. Since consumers tend to perceive reviews from similar reviewers as more trustworthy, it can be hypothesized that reviews that are filtered based on similarity cues will be perceived as more useful than reviews filtered based on the currently used factors like novelty or extremity. This research project aims at finding ways to increase the review usefulness by providing information about the reader-reviewer similarity. For this purpose, a theoretical model of review usefulness will be developed and tested with the help of an experimental study.

Session 4A: Idea Evaluation
Chair: Shannon Heald

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Evaluation shirking: Why ideas don't get evaluated

Johanna Schnier (Kuehne Logistics University), Tim Schweisfurth (U Twente), Christina Raasch (Kuehne Logistics University)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Idea Evaluation, Evaluation Incentives, Reminders/Deadlines

In innovation, a key challenge lies in evaluating ideas and selecting the best among them. Evaluators, i.e., decision-makers who are in charge of evaluating ideas, play a central role in the evaluation of ideas: They possess the expertise to tell good ideas from bad ones. However, evaluators might have only limited incentives to evaluate ideas. Idea evaluation takes up much time and requires substantial mental effort. Evaluators are often not compensated for evaluating ideas, and they might find communicating evaluation outcomes, especially rejections, unpleasant. As a result, evaluators might procrastinate on evaluating ideas or try to forward ideas to other evaluators. We refer to such behavior as 'evaluation shirking'. In this paper, we seek to establish evidence of evaluation shirking. We examine under what conditions evaluators take long to evaluate ideas, or altogether fail to evaluate ideas. We suggest that evaluators are particularly prone to shirk evaluations when they face a high workload and when they expect to file idea rejections that they are reluctant to communicate. Having established evidence of evaluation shirking, we also examine the effectiveness of reminders in mitigating evaluation shirking. We hypothesize that, while reminders make evaluators more likely to evaluate ideas, they also give rise to less accurate evaluations. We plan to use data from an idea suggestion system of a large automobile firm. We have access to more than 200,000 ideas submitted by approx. 30,000 employees and evaluated by approx. 5,000 evaluators between 2004 and 2018. We observe how long it takes evaluators to evaluate ideas, how they respond to reminders and whether they reject or select ideas.

Session 4A: Idea Evaluation
Chair: Shannon Heald

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Understanding creative idea evaluation and selection accuracy: The impact of personality traits, motives and value orientations

Ilona Weeterings (Radboud University), Prof. José Bloemer (Radboud University), Dr. Simone Ritter (Radboud University)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Co-creation, Idea evaluation, Idea selection, Sustainable innovation, Big Five personality traits, Intrinsic motivation, Extrinsic motivation, Value orientation

Governments, industry, and the general public realize the importance of behaving socially responsible. To assure peace and welfare for people and the planet, now and in the future, the UN has formulated seventeen sustainable development goals. To develop sustainably it is important to effectively create innovations. Co-creation can be used to involve consumers in the innovation process. While most research to date has focused on the idea generation stage, this study will focus on the consumers' idea evaluation and selection, because the ultimate success of the co-creation process depends on whether the most promising ideas are recognized and selected. If innovative ideas do not get accurately evaluated and selected, they are 'wasted'. Since the available scientific evidence consistently demonstrates suboptimal performance at evaluating and, specifically, selecting innovative ideas, it is important to study which consumers can accurately evaluate and select ideas. Therefore, this study explores which personality traits, motives, and value orientations impact consumers' idea evaluation and idea selection accuracy. To validate our propositions an exploratory survey research will be conducted with a questionnaire measuring participants' personality traits, motives, and value orientations, followed by an idea evaluation and selection task. Multiple regression analyses will be conducted to assess the relationship between the consumer characteristics (traits, motives, value orientations) and evaluation as well as selection accuracy.

Track B: Open and User Innovation Processes

Session 1B: Open Innovation and Crowdsourcing Frontiers
Chair: Christian Lüthje

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

When does rivalry drive performance?

Tom Grad (Copenhagen Business School), Christoph Riedl (Northeastern University), Gavin Kilduff (New York University)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Crowdsourcing, contests, rivalry

Existing rivalry research finds that rivalry relationships, based on past interactions rather than current levels of competition, can increase performance in competitive settings. However, is rivalry always beneficial to performance? We extend rivalry theory by integrating it with 1) research on performance pressure and arousal, and 2) regulatory fit theory and research on status change, leading us to propose two important moderators of rivalry, one individual (skill) and the other situational (potential for status change). We test these ideas using data from computer programming contests involving over 10.6 million competitive encounters across 63,220 software developers ('coders'). We find that, on average, coders who are randomly assigned to compete against others with whom they share a rivalrous history exhibit higher performance, above and beyond the effects of current levels of competition. Importantly, however, this is moderated by 1) coders' skill level, such that rivalry is more beneficial for more skilled coders and is harmful for less skilled coders, and 2) coders' risk of experiencing a status change, such that coders who face a possible status loss exhibit decreased performance when competing against rivals. Thus, rivalry can harm performance under certain conditions, which is vital to understanding its role in organizations.

Session 1B: Open Innovation and Crowdsourcing Frontiers
Chair: Christian Lüthje

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Open innovation processes in venture creation: The role of openness in reaching critical milestones

Adrian Toroslu (Utrecht University & Hochschule Bremen, City University of Applied Sciences), Andrea M. Herrmann (Radboud University), Brita Schemmann (Hochschule Bremen, City University of Applied Sciences), Maryse M. H. Chappin (Utrecht University), Carolina Castaldi (Utrecht University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: open innovation, venture creation, time to market, time to profitability

Compared to established firms, nascent ventures are known to operate under strict resource constraints. Additionally, it is vital that they quickly develop a marketable product and start to earn money. Open innovation (OI) can help innovative nascent ventures to get access to valuable resource which enable them to eventually attain these important goals. However, keeping in mind that speed matters when starting a new venture, one important question remains unanswered so far: To what extent does engaging in external partnerships (i.e., open innovation) help nascent ventures to be faster in achieving critical milestones in the venture creation process? By answering this question, we add insights to OI research that so far mainly focused on processes in established firms. As a result, there is little knowledge how nascent ventures will benefit from OI. Moreover, cross-sectional research designs in existing research on OI in nascent ventures potentially masks phase-dependent effects during the venture creation process. We therefore use Cox's proportional hazard regression models to analyze how OI affects nascent ventures to reach two important milestones: to have a developed and marketable product and to generate sustainable profits. First results indicate that engaging in a R&D collaboration slows down nascent ventures' product development and path to generating sustainable profits. In contrast, joining an industry association/consortium only slows down nascent ventures' paths to generating sustainable profits, while it has no effect on the speed of product development. By showing that obtaining valuable resources through OI is likely to be at the expense of speed, we contribute to a differentiated discussion regarding potential value capture through nascent ventures' engagement in OI. We also add to the OI and entrepreneurship literature a dynamic, process-oriented perspective on the engagement with external partners and its effects on important stages during the venture creation process.

Session 1B: Open Innovation and Crowdsourcing Frontiers
Chair: Christian Lüthje

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Innovation barriers vs. barriers to open innovation – a current state of literature

Andreas Kohlweiss (Graz University of Technology), Stefan Treul (Graz University of Technology), Hans Peter Schnöll (Graz University of Technology), Christian Ramsauer (Graz University of Technology)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Open Innovation, Innovation Barriers, Barriers to Open Innovation, Factors hindering Open Innovation

With the publication of Open Innovation by Chesbrough back in 2003 many industrial companies realized the strategic importance of open innovation. Referring to this, factors which are limiting the participation of companies in open innovation or factors that hinder companies to profit from open innovation activities where identified (Enkel, Gassmann & Chesbrough 2009) and are known today as barriers to open innovation. In literature nowadays, further interpretations of barriers in the context of open innovation exist. Some publications refer on the barriers to participate in collaborations, other publications describe the barriers within the execution of open innovation collaborations. In both cases similarities between these barriers and conventional (closed) innovation barriers seem to appear. Thus, there is the motivation to understand if and where are intersections between the different types of barriers and if there are already publications in literature which are describing possible relations. To investigate this phenomenon a literature review, based on the approach of Webster & Watson (2002) was conducted. Scopus, Web of Science, Springer Link and already known literature of preceding research were used as databases. After applying time constraints, inclusion and exclusion constraints and in a follow-up step by screening the abstracts 278 publications were identified to be relevant for the literature review. The described barriers were divided into two concept matrices – one for (closed) innovation barriers and a second for open innovation barriers. A single publication, Hartono & Rafik (2021), could be identified, which addresses open innovation in the context of innovation barriers. In contrast to this many similarities between single barriers of both areas were identified. Specially mentioned can be financial barriers, employee and organizational barriers, knowledge barriers, legal barriers as well as issues with different types of resources. The research results should provide a starting point for further research in this area.

Session 1B: Open Innovation and Crowdsourcing Frontiers
Chair: Christian Lüthje

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Will contributors agree to this intellectual property arrangement? Embracing the paradox of openness in crowdsourcing contests

Anja Tekic (HSE Graduate School of Business), Ghita Dragsdahl Lauritzen (University of Copenhagen), Johann Füller (University of Innsbruck)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Intellectual property arrangements, crowdsourcing contests, co-creation, open innovation, paradox of openness

The issues of what attracts solvers to participate in crowdsourcing contests and what refrains them from participating have gained a lot of attention in innovation management scholarship. Understanding the drivers of solvers' self-selection to invest their time and effort to contribute to open innovation challenges is a key for sustainable, viable and productive crowdsourcing. While primarily focusing on the role of monetary incentives, previous research shows that intellectual property (IP) arrangements also play an important role in fostering and sustaining participation in crowdsourcing contests, taking into account solvers' perception of distributed fairness with regards to how IP rights are distributed between them and seeker companies. However, our understanding of effective IP arrangements is still limited. Building on the tournament theory, in this study we aim to further explore the effects of various IP arrangements on solvers' participation. As crowdsourcing contests entail an inherent tension posing conflicting demands for ensuring control and openness in managing IP, we argue that seeker companies need to embrace the paradox of openness and acknowledge the interdependent and complementary relationships between the opposite poles of control and openness, to be able to ensure value creation as well as value appropriation. To capture causal complexity that arises from the joint effects that multiple configurational elements of IP arrangements may have on the level of solvers' participation, in this study we employ the fuzzy-set Qualitative Comparative Analysis (fsQCA) on the sample of 80 crowdsourcing contests. By providing the insights which configurations of openness and control mechanisms of IP arrangements lead to high level of participation and which to low level of participation, our study contributes to previous research that primarily focused on the influence of monetary incentives on participation in crowdsourcing, while shedding light on complex dynamics in inherent tensions in crowdsourcing, and open innovation in general.

Session 1B: Open Innovation and Crowdsourcing Frontiers
Chair: Christian Lüthje

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Complex organizational search and radical innovation in different knowledge environments

Maarten Cerpentier (Ghent University), Anja Schulze (University of Zurich), Tom Vanacker (Ghent University & University of Exeter), Shaker A. Zahra (University of Minnesota)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Open innovation, search and knowledge sourcing, radical innovation

Radical innovation has become a major priority for companies, since it enables them to target new and existing markets, expand their market reach, and achieve profitability and growth (Argente et al., 2020). However, such innovations are difficult to generate, as they require the integration of diverse types of knowledge that are increasingly dispersed across organizations (Zahra et al., 2020). Therefore, companies often need to search for this knowledge beyond their organizational boundaries. Earlier work has identified firms' external knowledge sourcing according to the number of information sourcing partner types and the intensity of interaction, leading to search breadth (number of partner types) and depth (number of partner types with intense interactions). In general, these studies have investigated the effects of search breadth and depth on innovation and concluded that both enhance firms' innovation performance. In the aftermath of that, scholars have started a discussion on their co-relation, and some hinted at a potential trade-off relation (Garriga et al., 2013; Srinivasan et al., 2021). Nevertheless, whether firms can theoretically pursue both types of search conjointly, and whether this brings additional benefits is still ambiguous to date. We extend this literature and aim to bring more clarity on the effectiveness of simultaneous broad and deep search ("complex search"), and propose that it provides additional benefits for radical innovation. Further, we expect that the effectiveness of complex search should depend on the abundance of knowledge of the searching firm's environment. This is because some threshold must be exceeded before external (complex) search will take place, based on costs and benefits of complex search. Not only will the potential benefits from complex search be higher in countries with high knowledge abundance, but also will the costs be lower, since it is easier there for firms to absorb and exploit all knowledge fragments.

Session 1B: Open Innovation and Crowdsourcing Frontiers
Chair: Christian Lüthje

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

User innovators' fairness perceptions when firms commercialize their innovations: A conceptualization and research agenda

Tuong-Vi Sophie Quach (WU Vienna), Nikolaus Franke (WU Vienna)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: open innovation, user innovation, commercialization, fairness, organizational justice, social exchange theory

User innovators have become an important input source for firms' innovation performance. Theoretically, the objectives, roles, and resources of users and firms are complementary and hence the commercialization of user innovations smooth and trouble-free. However, in reality, user innovators often feel exploited when firms adopt and commercialize their innovations. In some cases, this has led to severe conflicts. In order to understand when firms' commercialization behavior results in user innovators' perception of fairness or unfairness, we combine the theories of social exchange theory and organizational justice. The core of our conceptual model lies in the argumentation that user innovators may interpret the commercializing firm as either a social or an economic exchange partner. Depending on this interpretation, user innovators draw from either social justice rules or economic justice rules to evaluate their fairness perceptions of commercialization. The model allows us to develop a series of propositions that may guide both firms' commercialization behavior and serve as a starting point for future empirical research.

Session 1B: Open Innovation and Crowdsourcing Frontiers
Chair: Christian Lüthje

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Escaping the company bubble: A cross innovation model

Jutta Wirth (Rhine-Waal University of Applied Sciences), Kathrin Weidner (Rhine-Waal University of Applied Sciences), Karsten Nebe (Rhine-Waal University of Applied Sciences)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Cross innovation, innovation management, design thinking, open innovation, Life cycle model for Cross Innovation

Interactions beyond industry boundaries in which innovation is created through existing knowledge and is transferred from one industry to another industry is referred to as cross industry innovation. Cross innovation is a potential key specifically for Small Medium Sized companies (SMEs), which do not have the resources for sufficient own innovation to stay competitive in an ever changing market. Yet, little is known about what facilitates such cross innovation across firms, which may protect own innovations from being used by competitors. Motivated by the high practical relevance of the topic we here defined a theoretical life cycle model for cross industry innovation for SMEs. Our model comprises eight stages with related aims, inputs, outputs, and methods to the Cross Industry Innovation (CII) process and illustrate a path to cross innovation. The stages are defined as follows: Actor-Commitment, Actor-Target Match, Context & Problem, Discovery (adaption), Explore & Define, Evaluate & Validate, Develop & Test, and Deliver & Listen. Additionally, our model contains the stage zero for Community Building & Market Screening as an ongoing process through all stages. We also integrate various definitions for CII in our working definition for a better explanation of our research outcomes. This XI -life cycle model thus represents a holistic view including all stages, which are needed to implement CII in a systematic way into business. Moreover, we have identified several workshop techniques from classic innovation processes that are useful in a multidisciplinary environment. Many of the selected workshop methods belong to the Design Thinking approach that is used to solve problems, develop new ideas and puts the customer or user at the centre of the effort. These workshop formats are mapped to the different phases in the model and are suitable to combine activities in strategic management or business development of the CII implementation.

Session 1B: Open Innovation and Crowdsourcing Frontiers
Chair: Christian Lüthje

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Exploring new pathways to Open Innovation inside-out: An action research approach

Vlad Lichtenthal (University of Hamburg / Aalborg University)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Open Innovation inside-out, patent development, longitudinal data, exaptation, complexity

During the past two decades, Open Innovation scholars have found it challenging to provide evidence for advanced inside-out activities at the far end of the funnel. Most studies are evaluations of industrial projects based on curated data that with the benefit of hindsight. As part of his doctoral dissertation, the author has co-founded an Open Innovation studio in Helsinki in 2021 in order to provide a novel and reliable source of longitudinal data on IP development across various industries. The studio leverages augmented intelligence to support its inventors in the development process of new utility patents. Building on a unique, emerging, longitudinal dataset of proprietary technology, this study examines utility patent developments based on exaptation (i.e., a novel method of identifying untapped potential in existing technology by repurposing some patents to an adjacent industry - that they were not originally protected for). The database includes various internal documents ranging from the early ideation phase to the patent application and the ongoing commercialization efforts on several technologies. Furthermore, interviews with all the involved internal and external stakeholders (e.g. patent law firms) at different phases of the development process were included.

Session 2B: User Innovation Frontiers
Chair: Cornelius Herstatt

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

The nature and role of institutions in the diffusion of user-generated innovation: The case of the Water Lily and Rose Industries

Robert Sheldon (ESCP Business School), Thierry Rayna (Ecole Polytechnique), Martin Kupp (ESCP Business School), René Mauer (ESCP Business School)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: user innovation, institutions

This research looks specifically at the role that institutions play in the diffusion of user innovations. It does so by using a comparative methodology, drawing cases from the rose and water lily industries. Both industries are niches of the ornamental plant market that originated in 19th century France and the United States, and both view users as a source of innovation to varying degree. The theoretical lens through which these dynamics will be examined is broadly one of institutional economics. Institutions are defined as the "rules of the game" (North, 1990, p. 3) and may be formal in nature, which is to say codified, or informal in nature, consisting of uncodified norms and rules and often associated with culture (Greif and Kingston, 2011). The study finds that, in the industries examined, market failure in user innovation is often the result of absent or weak industry-level institutions that would otherwise facilitate, intermediate and/or guarantee transactions between user innovators and producers.

Session 2B: User Innovation Frontiers
Chair: Cornelius Herstatt

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Question and Answer: The effect of Stack Overflow on technology adoption

Daniel Brown (Harvard University), Maria Roche (Harvard University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: adoption, online public goods, agglomeration

Prior literature indicates that presence in a technological hub may be important for the adoption of new technologies, and especially for firms seeking to adopt early-stage technologies (Tambe 2014). Yet in the wake of the pandemic, many knowledge workers have shifted to working remotely from areas that are far from hubs. Considering this societal shift, it is important to understand the effectiveness of digital tools as substitutes for face-to-face interaction in facilitating technology adoption. In this paper, we use an instrumental-variable approach to examine the effect of Stack Overflow, the largest Q&A website, on the adoption of technologies. We find that users who have their questions answered are significantly more likely to adopt technologies related to the question than users whose questions remain unanswered.

Session 2B: User Innovation Frontiers
Chair: Cornelius Herstatt

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

The role of users in dynamic capabilities: Evidence from mobile game development studios

Hamed Nasiri (Allameh Tabataba'i University), Soroush Ghazinoori (Allameh Tabataba'i University), Mahdi Elyasi (Allameh Tabataba'i University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Dynamic Capabilities Microfoundations, User Innovation, Value Co-Creation

There are various studies about dynamic capabilities (DCs) and their role in the competition. However, there is less knowledge about the role of users as active partners of innovation in shaping and improving the DCs. In an open innovation approach to digital games life cycle, users play an important role by interacting directly with the game and the company. This shifting from a passive to an active role of users as value creators in digital games can be considered as a free source of innovation for gaming companies. Innovation happens with users facing their needs establishing a close relationship between game developers, and it seems that this approach to games also affects how the player role is defined. In this research, we examine how gamers can affect the microfoundations of DCs in mobile game developing studios. For this purpose, a case study of four successful mobile game developers has been conducted to investigate their interaction with the users. The results of this study emphasize on the the extent of users' possibilities for taking part in value creation and their role in empowering the microfoundations of DCs.

Session 2B: User Innovation Frontiers
Chair: Cornelius Herstatt

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

User innovation spillover: Nonwork-to-work and work-to-nonwork spillover effects

Ruth Stock-Homburg (Technical University of Darmstadt)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: user innovation, household sector innovations, work innovations, spillover effects

This study examines spillover effects of user innovations on work innovations and vice versa. This study draws on spillover theory and a longitudinal empirical study over three measurement points with 331 knowledge workers. User and employee innovations were assessed by an independent coder. This research makes several important theoretical contributions. First, spillover effects can be shown in both directions, i.e., from work to non-work domains and vice versa. Moreover, we shed light on the complex mechanisms of this linkage by considering temporal dimensions and including technological readiness as a moderating variable. Thus, this study extends current knowledge on user innovation by shedding light on the role of innovation activities at home on innovation activities at work and vice versa. Furthermore, it is shown that a person's willingness to engage with digital technologies during and outside working hours influences the proposed spillover effects.

Session 2B: User Innovation Frontiers
Chair: Cornelius Herstatt

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Users' idea journey in online communities – The effect of interest allocation on ideas

Tim Feiter (Technical University of Darmstadt), Christian Resch (Technical University of Darmstadt), Alexander Kock (Technical University of Darmstadt)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Inspiration, users' idea journey, online community

Online innovation communities are valuable sources for ideas. In such communities, users interact with each other to exchange their knowledge, provide feedback, and seek for inspiration. These social interactions express users' interest which may change over time. Understanding how this dynamic interest allocation affects the attractiveness of ideas would provide insights into the idea generation process, but this effect has not been analyzed yet. Based on theory about the idea journey that proposes benefits of inspiration before focus, we empirically investigate the interest allocation. Building on prior research, we investigate a leading user innovation community to analyze how users' time-dependent interest allocation influences their ideas. Using topic modelling (LDA) to extract hidden knowledge elements from the idea descriptions, we construct a dynamic interest measure for each user idea. Based on 2,326 ideas of active users, our findings suggest that it is favorable to focus on specific domains after receiving inspiration to generate innovative ideas. There is an optimal time between those phases. This effect is further amplified for an increasing difference between broad and focused interest. But also a single moment of inspiration can foster idea attractiveness. With these findings, we contribute to the literature on creativity and social network theory of users. First, we provide insights into the idea generation process and, second, we give a contextual and dynamic network perspective.

Session 2B: User Innovation Frontiers
Chair: Cornelius Herstatt

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

The impact of bifurcation on platform outcomes in a Q&A community

Xiaomeng Chen (Cornell University), Chris Forman (Cornell University), Michael Kummer (University of East Anglia)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: User contribution, Platform strategy, Open innovation platform

While some platforms remain one united community that includes all subcommunities, others bifurcate into subcommunities that become spin-off platforms. Such bifurcation breaks the community in the original platform and forces users to reallocate between the home platform and the spin-off platform. In this paper, we investigate the impact of bifurcation on platform outcomes. We exploit the introduction of spin-off platforms in an online platform incubator, where users can propose to start a new spin-off platform, to identify the effects of bifurcation using a difference in difference (DID) approach. We find that the bifurcation decreases user contribution in the home subcommunity. However, the two bifurcation communities generate more total user contribution and attract more new users, compared to a single united community. But the overall efficiency of knowledge exchange decreases after the bifurcation.

Session 2B: User Innovation Frontiers
Chair: Cornelius Herstatt

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

The impact of individual users' social affiliations and activities within and across digital ecosystems on the social capital of organizational actors

Alexander Redlich (RWTH Aachen University)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: digital ecosystems, complementarity, social affiliation

In recent years there has been an increasing interest from academia and practitioners in the concept of ecosystems (Adner, 2017; Bogers et al., 2019; Jacobides et al., 2018; J. F. Moore, 1993). The importance of ecosystems in practice is well documented (Adner, 2006) and diverse actors such as organizations, policy makers or individual users are seeking to build or participate in ecosystems. Many of today's existing ecosystems are strongly characterized by a digital layer, introduced through application of technologies such as sensors on hardware, algorithms, etc.. This digital layer of the ecosystem enables and facilitates the emergence of complex and category-overlapping space (Geels, 2004; Porter & Heppelmann, 2014). Many firms strive to establish a digital layer for their business in course of the digital transformation, e.g. by offering digital platforms (Perks et al., 2017; Rietveld & Schilling, 2021). The promise of participating in digital ecosystems is generating advantages through joint value creation between its actors (Baldwin, 2020; Jacobides et al., 2018; Kapoor, 2018). Thus, value creation and capture grounds in the interaction of different actors or entities, such as organizations, technologies or individual users.The complementarities of actors in the system creates the individual value-adding effect (Baldwin, 2020; Jacobides et al., 2018). A major source of complementarity that Baldwin (2020) identifies besides technology are preferences and social affiliations (e.g. families, social groups, etc.) of actors. Thus, this early stage research idea proposes the following research question: How do individual ecosystem users with their diffuse converging roles and multiple preferences, social affiliations and activities within and across digital ecosystems impact the social capital of organizational actors and hence facilitate their value-creation advantage through complementarity? Results of this study will provide an insight into ecosystem boundary determination and emphasize the role of individual actors by a social affiliation perspective on complementarity.

Session 2B: User Innovation Frontiers
Chair: Cornelius Herstatt

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

What drives professional users to engage in innovation? Factors that encourage and hinder the engagement of professional users

Masaya Onuma (Yokohama National University), Tatsuya Kubota (Seijo University), Atsushi Tsumita (Seijo University)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Professional user, lead userness, engagement, barriers, medical device

This study aims to explain the mechanisms behind the engagement of professional users in innovation activities. Mainly, we focus on factors at the individual and organizational levels to identify mechanisms of engagement by professional users. Prior research on user innovation has discussed the engagement of professional users in a product development process in specific areas (e.g. health care). However, they do not provide insights into why professional users get involved in innovation activities. Therefore, we focus on physicians as professional users and medical device development process and explore the mechanisms of physician involvement in medical device creation activities. We conducted an online pilot questionnaire survey based on seven-person semi-structured interviews. This survey targeted physicians at Yokohama City University Hospital. As a result, we obtained 81 responses. Our initial survey explored how the barriers of professional users and the colleagues with involvement experience affect professional user's engagement. As for barriers, we conducted exploratory factor analysis, and three types of barriers were extracted: The cost of daily work, lack of appreciation, and suitability of physicians' specialty. Our analysis revealed that the cost of daily work has a negative significant effect on involvement. The analysis also showed that the colleagues with involvement experience positively affect the involvement of other members.These results suggest that the professional users' environment (cost of daily work, colleagues) significantly impacts their involvement. This point has not been sufficiently pointed out in the previous studies. It is essential to include factors specific to professional users to clarify the mechanism of the involvement of professional users. In future research, we will study the effect of three factors: career orientation of professionals, colleague effect, and organizational support.

Session 3B: Dynamics of Innovation Frontiers
Chair: Tom Grad

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

An integrated view of ecosystem emergence – A systematic review of structure, processes and outputs

Parul Chaudhary (University of Stuttgart, Germany), Petra Nylund (University of Stuttgart, Germany)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Ecosystem emergence, Innovation Ecosystems, Entrepreneurial ecosystems, Ecosystem

The ecosystem concept has gained increased attention in strategy, innovation, entrepreneurship, and marketing literature. Yet there is little understanding of how ecosystems emerge and their specific processes, mechanisms, and outputs. Firms need to better understand the ecosystem emergence dynamics to decide the ecosystem strategies they need to pursue. We conducted a systematic literature review on ecosystem emergence comprising 120 articles across management disciplines to address this gap. The paper contributes to the literature on strategy and innovation by highlighting the differences and similarities of structure, processes, and outputs across strategy and innovation, entrepreneurship and regional development and marketing. We also observe two different perspectives on entrepreneurial ecosystems in terms of output. An integrated view to examine the ecosystem emergence is proposed by highlighting the research gaps.

Session 3B: Dynamics of Innovation Frontiers
Chair: Tom Grad

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

The effect of repeated collaboration on hobbyists team creativity

André Amft (RWTH Aachen)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Consumer, User, Creativity, Team, Repeated Collaboration

Whereas 10-28% of user innovation are collaborative efforts (von Hippel, 2017), we still know little about user teams (Pollok et al., 2021). Prior literature focused on either individuals or collaboration in communities (Baldwin & von Hippel, 2011; von Hippel & von Krogh, 2003). By examining the effect of repeated collaboration on the potential of user teams leveraging their knowledge diversity when conducting creative design work, this study adds to the literature on household sector (HHS) innovation. I argue and find that working together repeatedly individuals in user teams build a trustworthy environment, allowing them to open share their opinions, and giving and receiving feedback from each other (Hülsherger et al., 2009; Edmondson, 2003; West & Anderson, 1996). Further, while working repeatedly should allow individuals in a user team to learn about each other's perspectives and develop shared beliefs, thus reducing conflict, no such effect could be found. To test my hypotheses I draw on a unique data set of 1,797 user designer teams gathered from BoardGameGeek. Funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany´ s Excellence Strategy – EXC-2023 Internet of Production – 390621612.

Session 3B: Dynamics of Innovation Frontiers
Chair: Tom Grad

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Influence of product category characteristics on refined user innovations in an online community

Emil Herrling (Hamburg University of Technology), Christian Lüthje (Hamburg University of Technology)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Online Innovation Community, Product Development, Remixing, 3D-Printing, Network Analysis

The affordability of 3D-printers for households and ease of access to digital platforms for sharing designs fuels user innovation (von Hippel 2005, Gambardella et al. 2017). In communities, innovators collaboratively develop new products for their own use (von Hippel & von Krogh 2003). Often members of online innovation communities don't start from scratch, but rather use existing source materials to innovate. The re-use of digital knowledge is termed remixing. Remixed designs are an important factor for the overall innovation output in communities. As 3D-printing allows the creation and production of own products for many purposes we can organize designs by their related product category. Some categories are characterized by more aesthetic appeal (e.g. arts and sculptures) while for other the functional value is predominant (e.g. tools). We analyze the remixing patterns in various product categories by a comparative network approach to identify how remixing differs between product categories. We expect that in more functional product categories remixing is primarily done for improvements, leading to daisy-chain like linear remixing. In categories that are definied by their aesthetic value we expect to find patterns similar to bouquets, resembling the search for uniquness and individuality (Flath et al. 2017). By assigning functional and aesthetic values to product categories we measure our independent variables on product category level. The network topology measures represent our dependent variables. Using regression analysis we analyze the effects that product category attributes have on remixing patterns. Preliminary results suggests different patterns for aesthetic and functional related product categories. The research sheds light on the development processes of users for different product fields. The unique data send and approach allows to compare user innovation activities over many product categories within the same contextual setting. This allows to deep dive into the development activities of user-communities.

Session 3B: Dynamics of Innovation Frontiers
Chair: Tom Grad

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Does threat of imitation lead to innovation? The mediating roles of customer and supplier co-creation

Svenja Damberg (Hamburg University of Technology), Yide Liu (Macau University of Science and Technology), Cornelius Herstatt (Hamburg University of Technology)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: co-creation, copycat, imitation, incremental innovation, PLS-SEM

In the hospitality industry, both the service and product play a central role in value creation. However, the composition of food and services can easily be imitated. Few studies have addressed imitation of these in the restaurant industry, and the empirical evidence is mixed. Since customers can purchase a service/product either as an original or as a pirated product, imitation of recipes and service lines by competitors can lead to lost sales for innovators and pose a threat to their innovation performance. From an open innovation perspective, an entire stream of literature has focused on co-creation that promotes innovation. However, we focus on restaurants who find themselves in a competitive situation in the first place. In our paper, we investigate whether imitation promotes innovation by examining the role that customers and suppliers play in their promotion. Therefore, we build a structural path model with the threat of imitators as the independent variable influencing innovation and via customer and supplier co-creation as mediators. A sample of restaurant owners in China is collected and estimated using partial least squares structural equation modeling, a popular method in marketing and innovation to predict the influence of independent constructs on a target construct. This approach allows us to identify the role that customer-supplier co-creation plays in the emergence of innovations, i.e., service- and product-related innovations, under the threat of imitators. Furthermore, we derive theoretical implications for hospitality research by proposing a comprehensive path model to explain and predict these innovations. Finally, we derive practical implications that inform restaurants on how to best initiate co-creation with their customers and suppliers. Thereby, we contribute to open innovation research by better understanding the perceived threat of imitation and their impact on innovation in the restaurant example to derive implications for marketing innovation research and practice.

Session 3B: Dynamics of Innovation Frontiers
Chair: Tom Grad

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Content co-creation between an influencer and the brand

Douniazed Filali-Boissy (ICN Business School), Elodie Jouny-Rivier (ESSCA School of Management)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Influencer, brand, content co-creation, communication strategy

Through the increasing power of online influencers or "digital influencers" (Araujo et al., 2017; Roth and Zawadzki, 2018), brands can no longer do without investing in communication strategies with influencers. The "State of Influencer Marketing 2021" report mentioned influencer marketing is now an integral part of companies' digital marketing mix. In addition, 90% of the companies surveyed declared “influencer marketing to be an effective form of marketing”. The use of influencers helps companies to improve their brand awareness, to increase the drive-to-store and drive-to web, to recruit new consumers...etc. However, this phenomenon is still being unexplored in both academic literature and needs improvements in practical implications. On top of that, much research investigated the process and the benefits/risks perceived by stakeholders (internal/external customers, companies) to engage in a product/service co-creation approach. None have focused on how content can be co-created between a brand and an influencer, and the perceived experience of influencers co-creating content with the company.The research objective of this study is to focus on the collaboration relationships that may exist between the brand and the influencer. We also aim to highlight this dyad's content co-creation relationships and opportunities. A qualitative methodology is conducted with 8 influencers through semi-directive interviews. The results underline the existence of a co-creation relationship between the influencers and the brands according to the DART dimensions (except for the "risk" dimension) both on the content and on the communication strategy overall. On top of that, five out of the six dimensions of the co-creation experience were identified. These results can help brands to improve their interactions with influencers to gain visibility and boost sales.

Session 3B: Dynamics of Innovation Frontiers
Chair: Tom Grad

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Implementation of continuous innovation in manufacturing companies

Stefan Perau (RWTH Aachen University), Michael Riesener (WZL der RWTH Aachen), Maximilian Kuhn (WZL der RWTH Aachen), Günther Schuh (WZL der RWTH Aachen)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Innovation management, Continuous Innovation, Product Usage Phase, Implementation process

Due to increasing global competition and relevance of sustainability as well as increasingly heterogeneous customer requirements, manufacturing companies have to increase their innovation productivity. The approach Continuous Innovation focuses on the ability of a company to continuously improve or renew products or product features during the product usage phase. It enables companies to respond to rapidly changing customer requirements, extend the product use,maintain a strong customer focus and continuously increase customer benefits. However, there is a deficit in the systematic realization of Continuous Innovation for manufacturing companies in today's research literature and business environment. In order to successfully create continuous innovations the dimensions products, business models and processes must be considered in an integrated manner. In particular, there is a lack of an implementation process with integrated consideration of these dimensions. The resulting fundamental research question is: “How can Continuous Innovation be implemented during the product usage phase to increase the innovation productivity of manufacturing companies?” The authors present a concept for an implementation process for Continuous Innovation. Therefore, Continuous Innovation in manufacturing companies needs to be characterized and defined. Subsequently, influencing factors and relevant activities for the implementation process are identified. The analysis of interdependencies constitues the core of the concept. First, interdependencies between the influencing factors and the activities for implementation are described. Secondly, overall processes and process flow-charts are derived by clustering and sequencing the activities within the dimensions product, business model and processes. Based on the identified interdependencies, a company-specific composition can be developed. Both the manufacturing specific context and the overall target system are considered for the definition of a suitable innovation approach. Hence, company-specific processes are designed for the realization of Continuous Innovations. The concept is designed to support manufacturing companis to realize Continuous Innovation and therefore increase innovation productivity.

Session 4B: Open Source Frontiers
Chair: Frank Piller

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

The effect of acquisitions on open source software development

Joachim Henkel (Technical University of Munich), Michael Vetter (Technical University of Munich), Henning Piezunka (INSEAD), Helge Klapper (Rotterdam School of Management)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Open Source Software, acquisitions, community, Github

The development of open source software (OSS) often depends on sponsoring firms. Despite their important role, the effect of changes of control rights in these firms has yet to be explored. We study the effect of acquisitions on contributions to OSS using a matched-sample analysis of 347 OSS projects affected by an acquisition. We examine contributions by employees of the sponsoring firm and other contributors, finding acquisitions to have a negative effect. Our data reveals an enormous variation across acquisitions that can be traced back to differences in acquirers' ability and tendency to extract resources. Our qualitative data provides further insights into the underlying mechanisms. We discuss implications for practice and for research on OSS.

Session 4B: Open Source Frontiers
Chair: Frank Piller

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Contribution patterns of commercial developers in open source software projects – An empirical study of the Linux Kernel

Fabian Fleischmann (University of Passau), Sven Apel (Saarland University), Thomas Bock (Saarland University), Patrick Figge (University of Passau), Carolin Haeussler (University of Passau), Christian Hechtl (Saarland University)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Open source software, open source commercialization, open innovation

Since commercial companies are increasingly using and contributing to open source software projects, understanding the role of commercial companies in these projects becomes critical. Despite research on commercial involvement in open source software projects, exact characterization of contribution patterns and the impact these patterns have on open source communities have not been clarified yet. To bridge this gap, we conducted an exploratory study in the Linux Kernel, an open source project with a large share of commercial developers active in its community. We measured contribution behavior of commercial companies via the number of developers employed by individual companies to participate in open source development. Further, we quantified in which subprojects these developers were actively involved, how code contributions differ between companies as well as how commercial involvement can be characterized in the Linux Kernel in general. We identified nine contribution patterns of commercial companies, showed how often these patterns occur as well as what their effects on the number of active community members in affected subprojects are. In particular, companies' business models influence the choice of subprojects in which code contributions are made. While hardware-oriented companies contribute to rather hardware-related subprojects, companies interested in the overall functionality of the Linux Kernel contribute to wider array of subprojects. We further showed that specific contribution patterns can have detrimental effects on the number of developers working on the Linux Kernel alongside commercial developers. Contribution patterns in which companies overtake development efforts during certain periods of time negatively influence the inflow as well as number of volunteers actively contributing to affected subprojects even after periods in which these patterns can be observed.

Session 4B: Open Source Frontiers
Chair: Frank Piller

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Spanning remote work silos: How worker characteristics affect distant interactions in open-source software communities

Piyush Gulati (INSEAD)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Open-source software (OSS) processes, Remote collaboration, Exploration/Exploitation

Remote work intensifies communication silos. This is a problem for organizations as it is rarely feasible to perfectly organize interdependencies within silos. In this paper, we explore solutions by leveraging open-source software communities as the context – these are all-remote organizations where contributors carry out software development. As contributors select interaction partners, we argue that their decision to interact across silos resembles the notion of "exploration of new possibilities" from March (1991). Based on this view, the level of exploration (versus exploitation) undertaken by contributors should link to their goals and accomplishment levels. We test our theory using email metadata and text from the Linux-kernel project. We exploit contributor-level differences in their timezone location, affiliation (volunteer vs firm-sponsored), and goal accomplishment to offer empirical evidence.

Session 4B: Open Source Frontiers
Chair: Frank Piller

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Does crowdfunding favor open source?

Zhuoxuan Li (Stanford University), Charles Eesley (Stanford University), Robert Eberhart (Stanford University)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: open source, crowdfunding, propensity-score matching

Prior literature shows that using an open-source model to develop and commercialize a new product is not unseen in the new firm creation process. However, whether starting with an open-source model is beneficial for a venture's subsequent growth is underexplored. This work examines whether crowdfunding as an alternative fundraising mechanism favors open-source products. We explore this question with data that was scraped from the two largest reward-based crowdfunding platforms, Kickstarter and Indiegogo. We find that open-source campaigns have a higher success rate than non-open-source ones on both platforms. Open-source campaigns attract more backers, raise more capital, and have a higher probability of on-time delivery. The success ratio between open-source physical products and non-open-source physical products is much higher than software. This work contributes to the literature of open innovation and extends the understanding of the impact of the open-source model on new firm growth. It also contributes to a recent stream on crowdfunding and its impact on entrepreneurial financing.

Session 4B: Open Source Frontiers
Chair: Frank Piller

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

CTRL-OSS: Controlling Linux

Matteo Devigili (Bayes Business School -- City, University of London), Simone Santoni (Bayes Business School -- City, University of London)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: control, open-source software, Linux Kernel, mixed methods, deep learning

This study considers the problem of control in open-source software. In particular, it aims to chart the topology of control emerging in these settings, that is, to uncover the individual facets of control and to appreciate the semantic relationships that tie these facets together. To do so, it leverages naturally-occurring data from the 'Linux Kernel', a project that has evolved from a bunch of marginal hackers into a 4,000 developers community spanning 1,730 organizations. To offer a nuanced and scalable representation of control over the twenty-five years of email and code exchange collected, it integrates a qualitative approach to the study of meanings with deep learning. In particular, the analytical strategy consists of three steps: emails sampling via dynamic topic modelling, inductive qualitative coding over sampled emails, and active learning over the full emails' population. Overall, the project enquires about the boundaries and nature of control, critically examining the scope of applicability of the extant theories. In so doing, it offers momentum on how control is enforced by independent or organizational agents and on what, within organizations whose actors are not bound by any employment relationships and pursue different goals.

Session 4B: Open Source Frontiers
Chair: Frank Piller

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Coordinating code reuse within and across open-source software projects

Savindu Herath (ETH Zurich), Yash Raj Shrestha (ETH Zurich), Georg von Krogh (ETH Zurich)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Code reuse, open-source software, pattern discovery

Knowledge reuse has long attracted scholarly attention as a prominent theme in innovation management. With the proliferation of open-source software (OSS) and collaborative software development platforms in the last two decades, the reuse of code has become a ubiquitous form of knowledge reuse both within and across firms and developers. Even though code reuse in OSS projects offers many interesting puzzles to organization science scholars to study organizing for innovation, we lack large-scale empirical studies that examine the drivers of code reuse within and across projects. Addressing this gap, we aim to study code reuse in Java repositories on GitHub using compatible code clone detection tools to identify relationships between code characteristics, developer characteristics, project characteristics, and events of code reuse within and across projects. We wish to leverage machine learning methods and structural equation modeling to identify robust patterns governing code reuse. Thereby, we envision understanding how open-source developers learn to coordinate code reuse within and across projects.

Track C: Governance and Societal Challenges

Session 1C: Open Innovation and Governance
Chair: Andrew Torrance

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Citizens as an innovation source in sustainability transitions – linking the directionality of innovations with the locus of the problem in transformative innovation policy

Jakob Trischler (CTF Service Research Center and Karlstad Business School, Karlstad University), Peter O Svensson (The Swedish Agency for Growth Policy Analysis), Helén Williams (CTF Service Research Center and Department of Engineering and Chemical Sciences Karlstad University), Fredrik Wikström (CTF Service Research Center and Department of Engineering and Chemical Sciences Karlstad University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Transformative innovation policy, consumer innovation, sustainability transition policy analysis, household food waste

We argue that citizens play a key role in sustainability transitions. Citizens have unique knowledge on why social problems occur and experiment with possible solutions to these problems. Yet transformative innovation policy – a policy frame that promotes socio-technical systems change – is guided by a producer-centric innovation paradigm, which focuses on technological breakthroughs rather than social changes driven by citizens. By drawing on multiple research fields, and by using the example of household food waste, we challenge this paradigm and assert that addressing sustainability challenges requires a policy frame that defines citizens as an innovation source.

Session 1C: Open Innovation and Governance
Chair: Andrew Torrance

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Inclusion and openness as STI policy objectives

Helka Kalliomäki (University of Vaasa), Johanna Kalliokoski (University of Vaasa), Leena Kunttu (University of Vaasa), Jari Kuusisto (University of Vaasa)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Open and user innovation, inclusive innovation, STI policy, innovation governance, impact evaluation

Inclusion as a policy objective has been increasing its significance in STI policy agendas globally. The OECD has recently raised inclusive innovation policies into discussion as "policies that aim to remove barriers to the participation of individuals, social groups, firms, sectors and regions underrepresented in innovation activities" (Planes-Satorra & Paunov 2017, 6). Here, the goal is to provide equal opportunities for different members of society to benefit from, and to participate in innovation. However, the specific meaning of the term 'inclusion' remains ambiguous in policy and research language. The operationalization of inclusion as STI policy objective remains a challenge as it comes to design and implementation of 'inclusive policies'. It has overlaps with, and connections to open innovation promotion. What is still almost entirely missing is recognition of users as innovators and innovations based on systems of use. Our aim is to highlight and clarify different dimensions of inclusion and openness as STI policy objectives. We also present an evaluation framework that can be used in open and user innovation governance and in steering evaluation practice.

Session 1C: Open Innovation and Governance
Chair: Andrew Torrance

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Addressing the challenges of open innovation practices in emerging markets: Towards the evidence-based framework

Joni Riihimäki (University of Vaasa), Khuram Shahzad
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Open innovation, Emerging market, Evidence-based framework, Innovation performance, Challenges

In the current multinational and globalized business environment, the role of openness has increased and led companies to start exploring new opportunities. Much focus has been put on the utilization and benefits of open innovation while still the extent of challenges faced are understudied. The negative impacts on commitment and attitude can take place and start an undesirable snowball effect in an organization's innovation performance. This quantitative paper focuses on mapping open innovation challenges which occur both at the first stages and during the open innovation activities in emerging markets. Based on data collected from 201 SMEs and MNEs from Turkey, Russia, and India, the effects of occurring challenges on both success of collaboration and the implementation of innovation are examined. As certain challenges are occurring at different stages of innovation activities, we found that difficulties with managing the open innovation process and lack of top management support had a strong negative impact on organizations' open innovation outcomes. Further, it was revealed that drivers of failure in organizations' open innovation systems are based on the lack of understanding capabilities and potential benefits of open innovation partners while reliability is raising concerns. In general, this research paper assists companies to have a better overall view of different challenges possibly arising throughout the open innovation activities while further the results indicate on which scale those challenges are hindering innovation actions.

Session 1C: Open Innovation and Governance
Chair: Andrew Torrance

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Managing digital transformation in cities

Petra Jeffery (Higher Colleges of Technology)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Digital Transformation, Smart Cities, Public Sector Innovation, Citizen Engagement

The ongoing digital transformation in cities has highlighted the need for systematic end-to-end methodologies and management processes for public sector innovation. Innovations in smart city context are implemented in ecosystem based co-creation with a plethora of stakeholders with diverse motives, operating practices and objectives, which makes these projects cumbersome to manage. Cities typically have clear vision and strategy for digital transformation, but successful implementation of strategies is hindered by treating digital service creation as traditional software implementation projects rather than innovation initiatives. The lack of management practices and experience in innovative design approaches like citizen engagement, co-creation, challenge driven innovation and explorative research methods slow down the digital transformation journeys in the cities. This submission addresses the identified challenges in public sector innovation, specifically in designing and innovating digital services in cities. The paper reviews the current best practices in publicly driven digital innovation, and presents a representative case study for validation and further elaboration of literature based classifications of public sector innovations. The paper's epistemic contribution is adding evidence to the body of research in public sector innovation and digital service design. The key managerial contribution is increased clarity on smart city transformation process with typologies of actors, motives and management practices for ecosystem based co-creation. The key words: public sector innovation, digital transformation, smart city.

Session 1C: Open Innovation and Governance
Chair: Andrew Torrance

Date: Monday, June 20, 2022
Time: 4:25 pm - 5:40 pm CET

Use open innovation principles to reach transparent and traceable sustainability in industrial companies

Marion Christine Unegg (Graz University of Technology), Hans Peter Schnöll (Graz University of Technology), Patrick Herstätter (Graz University of Technology), Andreas Kohlweiss (Graz University of Technology), Christian Ramsauer (Graz University of Technology)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: Sustainability, Open Innovation Principles, Transparency, Traceability, Industrial Companies

In general, the pressure on companies to act sustainably is increasing. On the one hand, there is a market pull, such as the changed demand behavior of consumers, and on the other hand, there is a regulatory push due to the requirements of for example the European Union. In, especially small and medium-sized companies, there are only a few or no employees responsible for sustainability. This creates major challenges for companies. By combining sustainability with the principles of open innovation, companies can respond to the market push and regulatory pull, in the best case even generate monetary or non-monetary value, and contribute to the achievement of global climate goals. Through an open and transparent handling of climate-relevant data by companies, such as their carbon footprint, it enables consumers to understand which positive aspects a company can contribute to climate protection, but also which challenges companies face in the context of the goal of climate neutrality. With the help of a pilot study conducted in an Austrian company, it could be shown that transparent and traceable sustainability approaches can be created through the transfer of knowledge from the outside in as well as the transfer of data from the inside out. Through open innovation principles in sustainability it is possible to create transparent and traceable data and add value to the environment, the society and the company.

Session 2C: Ecosystem Orchestration and Platforms
Chair: Johann Füller

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Market design and the problem of modularization

Georg Rilinger (Max Planck Institute for the Study of Societies)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: market design, modularization, platforms, corporate crime

Despite much sociological research on market design, we know little about the conditions under which design projects fail. Starting with the insight that digital markets are built and maintained inside organizations, the paper finds that modularization of design work derails design projects for complex allocation problems. The argument emerges from the analysis of an extreme case: the creation and collapse of California's electricity markets between 1993 and 2001. Despite careful planning by some of the world's foremost experts, the system produced dozens of illegal gaming opportunities that derailed the intended logic of the markets. Drawing on data from four archives and semi-structured interviews, the paper explores why designers adopted features that prompted games and misrecognized these implications. Synthetic markets do not work in isolation, but must be attached to other parts of larger socio-technical systems in the right way. Since market actors look for profitable trades in any part of the system, market rules must be globally consistent. However, to build and manage complex systems, designers break the architecture into modules that are related to each other via simplified interfaces. Such modularized work tends to produce only locally optimal rules, obscure global inconsistencies, and resist iterative problem-solving.

Session 2C: Ecosystem Orchestration and Platforms
Chair: Johann Füller

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

How to define and orchestrate innovation ecosystems

Jara Pascual (Collabwith)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: innovation ecosystems, innovation, ecosystems, clusters, local ecosystems, digital, hubs, transformation

The European industry sector has undergone a drastic development in the last years, following the advent of the digital transformation, green transformation, manufacturing 5.0. Knowledge and technology are now more accessible than it was a decade ago, and this has fostered its interest from an industrial and educational perspective. For instance, only the the European deep tech economy is already valued EUR 50 billion and the research in deep tech, digital and sustainable technologies is one of the priority areas covered by the Industrial Leadership and Societal Challenges of Horizon Europe. European Commission, EIF, EIB Group join forces to boost innovation ecosystem and innovation with investment with EUR 200 million of financing. However, only 40% of the public funds are leveraged and not used by industry or universities. The idea of the innovation ecosystems should be to leverage this financing structure from different funding opportunities with a strong access to the innovation ecosystem and should well connected. Innovation ecosystems should connect digitally to the innovation ecosystem in Europe from the tech transfer office to the industry, accelerators networks, universities, research centers, startups, private and public organizations. Where they can easily connect by needs, with financial opportunities from Horizon Europe framework, the venture capital program, and the InnovFin. The innovation ecosystem should bridge the gap between academic institutions and the industry with a collaborative mindset and entrepreneurship programs inside the universities connected through the tech transfer office. The innovative and entrepreneurial objectives of the innovation ecosystem will lead to a new line of potential innovation and entrepreneurship activities from Universities (as hubs of the ecosystem) into the European industry and society, by establishing and fostering new collaborations and partnerships, providing the necessary tools, methodologies, and activities, and also taking advantage of a digital platform to consolidate the innovation ecosystem.

Session 2C: Ecosystem Orchestration and Platforms
Chair: Johann Füller

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Public-private ecosystems: Harnessing government and nonprofit collaborations to address societal challenges

Joel West (KGI - Keck Graduate Institute), Paul Olk (Denver University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: government, nonprofit organizations, ecosystems, governance

With the exception of regional ecosystems, most studies of ecosystems assume that the primary actors in an ecosystem are private firms. Yet when academic knowledge is involved — or a government agency has a policy objective — public-private collaborations are inevitable, and with that an admixture of incentives and institutional logics. Prior research on public-private partnerships and other collaborations provides valuable insights, but tends to emphasize bilateral rather than multilateral collaborations such as consortia that may be found within ecosystems. Here we examine how ecosystem theory does (and does not) explain public-private ecosystems, focusing on public-private ecosystem collaboration in innovation policy, standardization and public health.

Session 2C: Ecosystem Orchestration and Platforms
Chair: Johann Füller

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

The multiple contributions by users to socio-technical change

Sampsa Hyysalo (Aalto University)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: User Innovation, energy transition, citizens, user communities, low-carbon solutions, renewable energy technology, heat-pumps, technological change

While climate and energy policies try to mobilize citizens into improving their heating systems and energy consumption, many people have already far exceeded the expectations. Some develop new to the world innovations in small-scale renewable energy systems in their free time. Others aide their peers in adopting and adapting new technology. Many participate in physical and digital energy communities that have come to have capacity to shape new technology and society widely. Because different aspects of how users shape innovation journeys and yet wider technological change are studied by different disciplines, their overall import has been downplayed. Our findings based from a decade long ethnography and historical analysis of Finnish heat pump field surface eight user activity types that contribute to technological change and ongoing energy transition. In addition to just adopting new technology users pursue adaptation of technology, adjusting of routines and championing of new types projects. These ensue when subsets of users face the need to alter the equipment or their social and technical contexts (physical houses, daily practices). Yet smaller subsets of people turn to further improving equipment (or saving costs) through DIY projects and user innovations, which we verified over one hundred in Finnish heat pumps. Innovation activities add to the solution variety available to other adapters, signal further design needs to resellers and manufacturers. Even more importantly user innovators provide deep-level competence for peers in user communities, allowing these to build up into major repositories of knowledge and hotbeds of peer-intermediation. Large user communities also affect market creation and contribute to enhancing the legitimacy for novel technology. In all, the findings indicate that innovations and modifications by users are just the tip of the iceberg among the mechanisms by which users affect the overall shaping of a technology type in a given context.

Session 2C: Ecosystem Orchestration and Platforms
Chair: Johann Füller

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Smart cities as user innovators: Technology choice, independence, and public participation

Lucia Baur (Technical University of Munich), Joachim Henkel (Technical University of Munich)
First Author = Presenter

Full Presentation (10 minutes)

Keywords: Smart city, cities as user innovator, technology adoption, technology-organization-environment framework (TOE), technology choice

At the intersection of the macro trends smartification and urbanization lies the concept of smart cities. Cities themselves take a versatile role in doing so: they are the main adopter, the agent acting for their principal – citizens – and often they are also the innovators who customize the concept smart city to their specific needs. One of the mainly deployed connectivity technologies are Low Power Wide Area (LPWA) network technologies. In addition to low cost the self-provisioning feature makes them highly interesting for cities: they enable cities to set up their own IoT-network, thus acting as user innovators and becoming their own, independent network operator. So far research on smart cities has focused on enabling technologies or case studies of single cities or even single use cases within a city. Practitioners have additionally developed rankings of smart cities. We follow a different approach: we abstract from single cases by analyzing a dataset resulting from our survey on smart city implementation. We investigate motivations and drivers for smart city implementation, technology decision criteria and the implications of public participation ambitions on the network setup. Our research follows a multi-method approach. We analyze eleven semi-structured interviews with German cities to develop a tailored Technology-organization-environment (TOE) model (Tornatzky & Fleisher, 1990) as conceptual frame for our research. Based on these insights we developed a survey and received complete answers from ~120 German cities. This study expands current knowledge in three areas: First, the tailored TOE framework enhances our current understanding why and how cities decide to become a smart city. Secondly, we show how environmental and organizational characteristics, including relations with the public, are linked to the technology choice. And thirdly it studies the importance of independence and user innovation as a driver for infrastructure setups.

Session 2C: Ecosystem Orchestration and Platforms
Chair: Johann Füller

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

From user innovation to user entrepreneurship: An ecosystem perspective

Liting Selina Liang (University of Vaasa)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: user entrepreneurship, user entrepreneurial process, ecosystem

In recent years, a growing body of research has been conducted concerning user entrepreneurship, where users do not just work as sources of innovation but also launch their own business or sometimes diversify their business based on the innovative products/services that they have created as a user. Entrepreneurial ecosystems can be seen as networks depicting pathways to accessing necessary competencies and resources for entrepreneurial activities. Naturally, user entrepreneurs actively engage in establishing networking with a wide range of actors in the ecosystems (e.g. user communities, universities, public and private institutions, relevant manufacturers and venture capital) during their entrepreneurial process in order to achieve necessary competencies and resources to make their business ventures successful. In turn, they may have different ecosystem strategies by engaging different actors in different ways at different stage of their entrepreneurial process. Building on a relational and network view of entrepreneurial ecosystems, this proposed research aims to investigate user entrepreneurs' ecosystem strategies and how these strategies may influence the outcomes of user entrepreneurship. The empirical data will be collected by conducting semistructured interviews and an online survey concerning 20-30 business ventures in Europe that were founded on the basis of the innovative products/services that entrepreneurs have created as a user . Using a grounded theory building approach, we will first establish a set of core categories that capture networking behaviours of user entrepreneurs. We will then be analysing the startups' ecosystem strategies by using fuzzy set Qualitative Comparative Analysis (fsQCA). We expect to identify different types of ecosystem strategies according to the number (breadth) and types of actors (Diversity) engaged in addition to quality of the engagement （cohesion）. We will then develop a configurational model to examine the effectiveness of these different types of ecosystem strategies in relation to the outcomes of users' entrepreneurial process

Session 2C: Ecosystem Orchestration and Platforms
Chair: Johann Füller

Date: Monday, June 20, 2022
Time: 5:45 pm - 7:00 pm CET

Social shaping of innovation: Exapting Airbnb's services for peer-to-peer humanitarian aid

Vlad Lichtenthal (University of Hamburg / Aalborg University)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: social innovation, gaming theory, network theory

The ongoing political situation in the Ukraine has created the largest humanitarian emergency in Europe since the Second World War. In countries all around the world, there is an unprecedented society-wide willingness to support people in the Ukraine. With hundreds of thousands or refugees and millions affected directly by the volatile socio-political circumstances, an ingenious social innovation practice is currently emerging. Adopting a combination of network- and gaming theory, this working paper explores an emerging community-driven exaptation practice (i.e., repurposing of existent technology for different uses). Airbnb customers are currently leveraging the outreach of the platform to donate directly to individuals by booking accommodation in a conflict zone. Furthermore, organizations (e.g.,a Finnish Open Innovation Studio) have adopted a similar approach. They organize events such as online seminar series, where participants are encouraged to book an accommodation in the Ukraine (as a direct peer-to-peer donation), instead of paying a participation fee. The paper also explores second-order- and spill-over effects of the emerging peer-to-peer initiative.

Session 3C: UI in Healthcare and Crowdsourcing Science
Chair: Pedro Oliveira

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Mental models for user innovation: The case of wearable remote health monitoring technology for the elderly

Charles Weber (Portland State University), Noshad Rahimi (Portland State University)
Antonie Jetter (Portland State University), Katherine Wild (Oregon Health Science University)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Mental Models, User Innovation, elderly, healthcare, wearable, remote health monitoring

Providing healthcare to the ever-rising elderly population has become a severe challenge and a top priority for policymakers. Emerging innovations in healthcare, such as remote health monitoring technologies (RHMT), promise to deliver a better quality of care and reduce the cost of healthcare. However, many elderly people reject healthcare innovations and refuse to participate in the innovation process. This lack of participation constitutes a big practical problem because it keeps the elderly from benefiting from technology advances. Product developers consequently want to involve the elderly in the innovation process. Specifically, they want to know what motivates the elderly to act as user-innovators in the adoption of RHMT? This study deploys an empirically grounded mixed-methods approach to develop a mental model of adoption of and user innovation in the development of RHMT. The model, which is based on the insights and experiences of 15 elderly women and their gatekeeping caregivers, is expressed as a fuzzy cognitive map. The model shows that the extent of adoption and participation in the innovation process strongly depend on the degree of socialization of the elderly women. Gatekeeping support was determined to be more important than community support and product quality. Family gatekeepers were deemed the most effective among socially integrated women. Socially more isolated women were much less likely to adopt technology and participate in user innovation, but they were helped significantly by tech-savvy peers. The findings our study have provided in depth insight into the mechanisms of technology adoption and user innovation in elderly care, revealing a hitherto unobserved complexity. Furthermore, the mixed-methods approach deployed in this study is especially valuable to OUI because it can integrate the perspectives of users and suppliers. In principle, it can also determine the collective mindset of ecosystems that are jointly engaged in open innovation.

Session 3C: UI in Healthcare and Crowdsourcing Science
Chair: Pedro Oliveira

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

How to identify and support innovative patients? Evidence on user innovation in healthcare from a large-scale study in Germany

Moritz Goeldner (Hamburg University of Technology), Julia Hagen (health innovation hub)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: User innovation, healthcare, patient innovation

Long since, healthcare professionals have been acknowledged as a valuable source of innovation in healthcare. Recently, the role of patients and their non-professional caregivers such as relatives has gained attention in academia and industry. In this study, we aimed at identifying and further supporting patients and caregivers who are willing to actively share their unmet medical needs and to provide solutions that might help to overcome those unmet medical needs. Therefore, we have developed a scientific six-step process to identify a large number of user innovations by patients and caregivers and to further promote few selected ideas through networking. This study was carried out in Germany in 2020/2021 by the health innovation hub (hih) of the German Federal Ministry of Health under the patronage of Federal Government's Commissioner for Patients in Germany. A 19-item-survey way designed to identify patients and their caregivers and their unmet medical needs as well as potential solutions. The majority of the 1,451 participants were patients (83%), followed by caregivers (13%) and others (4%). More than half of participants (55%) reported to already have an idea for improving their own health condition, 36% of participants even entered multiple ideas. However, only 66 of the 784 participants with one or more ideas have already started or planned to implement their idea.In this study, we make at least two major contributions: First, we have developed a scientific process to systematically identify innovative patients and their caregivers. Second, the respondents were not only able to describe gaps in current healthcare, but the majority was also able to describe one or multiple user innovation to improve their own and ultimately also other patients' quality of life. We believe that this need-related knowledge of patients and caregivers is a "treasure" that should be systematically exploited in the future.

Session 3C: UI in Healthcare and Crowdsourcing Science
Chair: Pedro Oliveira

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Employee-User innovation and patient sociodemographic characteristics in federally qualified health centers

Olivia Jung (Emory University), Janet Cummings (Emory University)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Health care, innovation contests, internal crowdsourcing, employee-user innovation, federally qualified health centers, underserved populations

Improving the quality of care is of paramount importance in federally qualified health centers (FQHCs). One strategy is to engage frontline employees in user innovation by encouraging them to generate and share ideas for quality improvement. In a US national sample of 54 FQHCs, we explore the relationship of employee user innovation—via participation in innovation contests that sought ideas to improve patient care and offered opportunities to vote on shared ideas—and patients' sociodemographic characteristics. Although all FQHCs deliver care to underserved populations, we find considerable variation in patients' socioeconomic status in our sample. Furthermore, employees in FQHCs that serve a higher percentage of patients living in poverty and/or a higher percentage of Hispanic patients were less likely to participate in idea submission and voting. Our findings suggest that sociodemographic characteristics of the patients served in FQHCs may be important determinants of success when encouraging user innovation among frontline workers.

Session 3C: UI in Healthcare and Crowdsourcing Science
Chair: Pedro Oliveira

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Examining crowdsourcing in science construct: A validation study

Regina Lenart-Gansiniec (Jagiellonian University)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: crowdsourcing in science, scale development

Crowdsourcing is linked with openness of science (Beck et al., 2020; Foege et al., 2019), collaborative science (Correia et al., 2018; Franzoni & Sauermann, 2014), networking in science (Uhlmann et al., 2019), academic engagement (Perkmann et al., 2021), public participation in science (Strasser et al., 2019), open innovation in science (Beck et al., 2020), and scientific knowledge production (Eklund et al., 2019). Moreover, crowdsourcing in science is a response to the development of information and communication technology, Web 2.0 technology, popularization of the idea of open source, open science, open software, open reviews (Beck et al., 2020; Beck et al., 2019; Franzoni & Sauermann, 2014; Guinan et al., 2013; Lifshitz-Assaf, 2017; Sauermann et al., 2019), democratization of science, openness of academic teachers to access to scientific research by all interested parties, growing interest of society in scientific research (Uhlmann et al., 2019). The purpose of this paper is to report the results of a study aimed at conceptualising and developing valid measurements for crowdsourcing in science.

Session 3C: UI in Healthcare and Crowdsourcing Science
Chair: Pedro Oliveira

Date: Tuesday, June 21, 2022
Time: 4:15 pm - 5:30 pm CET

Elaboration likelihood model and supercrip: The moderating effect of visible disability on investment decisions processing

Elsa Bergstrom (Oregon State University)
First Author = Presenter

Research Plan Presentation (2 minutes)

Keywords: disabilities, entrepreneurship, user innovation, elaboration likelihood model, superscrip, investment decision-making

People with disabilities often find their needs under met by established firms. As a result, they engage in user innovation activity to meet their needs and with the hope of helping others with a similar disability. However, research on user innovators with disabilities and entrepreneurs with disabilities are virtually non-existent. Much of what the business literature informs of us about people with disabilities come from studies in organizational behavior, human resources, and marketing. By introducing disability as a central component to a study context, this study is able to examine how the presence of a visible disability influences cognitive processing of the information recipient. Specifically, this study uses the Elaboration Likelihood Model to set the framework for the argument that visible disability status of the user entrepreneur will alter a potential investors information processing and decision-making. To help support this argument, supercrip is used to explain how disability moderates an individual's reaction. To test its hypotheses, this study intends to conduct an investment pitch experiment, in survey format, that presents participants with videos of a two minute pitch that, while sharing the same product and text, only differ in whether the presenter has or does not have a visible disability.

Session 4C: User Innovation, Social Welfare and Resilience
Chair: Katherine Strandburg

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

Social welfare gains from innovation commons: Theory, evidence, and policy implications

Jason Potts (RMIT University), Dietmar Harhoff (MPI), Andrew Torrance (University of Kansas), Eric von Hippel (MIT)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: innovation commons, data, innovation policy

Innovation commons – which we define as repositories of freely-accessible, "open source" innovation-related information and data - are a very significant resource for innovating and innovation-adopting firms and individuals: Availability of free data and information reduces the innovation-specific private or open investment required to make the next innovative advance. Despite the clear social welfare value of innovation commons under many conditions, academic innovation research and innovation policymaking have to date focused almost entirely on enhancing private incentives to innovate by enabling innovators to keep some types of innovation-related information at least temporarily apart from the commons, via intellectual property rights. In this paper, our focus is squarely on innovation commons theory, evidence, and policy implications. We first discuss the varying nature of and contents of innovation commons extant today. We summarize what is known about their functioning, their scale, the value they provide to innovators and to general social welfare, and the mechanisms by which this is accomplished. Perhaps somewhat counterintuitively, and with the important exception of major digital platform firms, we find that many who develop innovation-related information at private cost have private economic incentives to contribute their information to innovation commons for free access by free riders. We conclude with a discussion of the value of more general support for innovation commons, and how this could be provided by increased private and public investment in innovation commons "engineering", and by specific forms of innovation policymaking to increase social welfare via enhancement of innovation commons.

Session 4C: User Innovation, Social Welfare and Resilience
Chair: Katherine Strandburg

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

User and open innovation as drivers of resilience and inclusion in developing countries

Erika Kraemer-Mbula (University of Johannesburg)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: user innovation, open innovation, developing countries, resilience, inclusive development

Low-income consumers and low-income communities are central components of the socio-economic fabric in the Global South. In the context of developing countries, low-income consumers are associated with severe social challenges (poverty, vulnerability, marginalisation, exclusion, etc) and seen mainly as recipients of benefits or welfare support. The literature on user innovation helps identify innovative activities by individuals during unpaid discretionary time and when market offers do not meet their needs (von Hippel, 2017). Low-income users often live in communities that are characterised by the prevalence of "unmet needs". At the same time, this literature suggests that user innovators rarely protect or restrict access to the innovations they have developed, which has an effect on diffusion dynamics and possible ripple effects in vulnerable communities. This paper argues that the concepts of user and open innovation provide a lens to explore the redistributive effects of innovation and aspects of resilience. By conducting a systematic literature review this paper explores the linkages between user innovation, open innovation, resilience and inclusive development. This focus aligns with a recent shift in innovation thinking towards environmental and social justice (Schot and Steinmueller, 2018), which calls for a more inclusive conceptualisation of innovation activities relevant to constrained environments.

Session 4C: User Innovation, Social Welfare and Resilience
Chair: Katherine Strandburg

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

The Rich or the Poor? Personal resources, do-it-yourself, and innovation in the household sector

Max Mulhuijzen (Utrecht University), Jeroen PJ de Jong (Utrecht University)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: household sector innovation, user innovation, do-it-yourself, prosumption

Household sector innovation is significant in scale and scope, but has so far been studied in isolation and with mixed evidence regarding the role of personal resources (consumers' income and discretionary time). We recognize that household sector innovation is embedded in the broader phenomenon of do-it-yourself (DIY) by consumers, as the literature reveals parallel motivations and antecedents. The main distinction is that DIY results in the home production of any new or existing good, while household innovation is restricted to goods embodying a novel function. We explore if studying household innovation and DIY in an integrated framework helps to resolve inconsistent previous evidence on the role of personal resources. Based on a neoclassical model in which agents maximize their allocation of time, we hypothesize that income and discretionary time positively relate to DIY, but—given consumers' engagement in DIY—negatively relate to innovation. Our findings suggest that consumers with more personal resources derive more process benefits from DIY, but that these benefits crowd out individuals' focus on the function of their objects, hence, the likelihood of developing innovations. Survey data from the United Arab Emirates (n = 2,728) confirm our suppositions, showing that the relationship between personal resources and household innovation is more refined than suggested by previous studies.

Session 4C: User Innovation, Social Welfare and Resilience
Chair: Katherine Strandburg

Date: Tuesday, June 21, 2022
Time: 6:05 pm - 7:20 pm CET

The improvisation-bricolage nexus: How ad hoc communities combine fast response and available resources to quickly develop projects in times of scarcity

Ricardo Coelho da Silva (Nova School of Business and Economics (NovaSBE)), Leid Zejnilovic (NovaSBE), Miguel Pina e Cunha (NovaSBE), Pedro Oliveira (NovaSBE / CBS)
First Author = Presenter

Full Presentation (15 minutes)

Keywords: Communities, Improvisation, Bricolage, Covid-19, Exogenous shocks

The challenges and scarcities imposed by exogenous shocks drive responses from individuals, communities and organizations. Recently, the case of the Covid-19 pandemic provoked the emergence of quickly established ad hoc communities around the world to address social and healthcare challenges. In this work, we analyze how these ad hoc communities started and developed their structure and response. Specifically, we explore their development from just a few participants to large communities, and how this development was possible through the use of improvisation and bricolage. We conduct a cross-case analysis of 13 ad hoc communities or community projects developed in response to an exogenous shock, the outbreak of the Covid-19 pandemic. Our analysis shows a set of key dimensions which influenced the development of these communities, and a consistent sequence of improvisation and bricolage actions for the emergence, development, and survival of communities initially developed for a specific, time-sensitive purpose. The context of ad hoc community responses to an exogenous shock allows generating knowledge that may help develop the ability to build operational capabilities to address future events.

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The professional identity of humanitarian aid workers and their valuation of external knowledge

Shtefi Mladenovska (WU Vienna)
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Research Plan Presentation (2 minutes)

Keywords: not-invented-here-syndrome, humanitarian professional identity, external knowledge

Despite an unprecedented level of investment and commitment to innovation in the humanitarian sector, there is still no widespread adoption of often novel and highly promising solutions. Substantial anecdotal evidence points to the NIHS as one reason for this, suggesting that it might be emerging as a response to perceived identity threats. The Social Identity Theory and the construct of organizational identification have played a central role in explaining and predicting how intergroup conflict triggers NIHS among individuals. This study goes behind this organizational identity perspective to suggest that with the adoption of external knowledge, what is fundamentally at stake is the individuals' perceived ability to enact a certain professional identity. An identity is considered attractive by professionals as long as it gives them a sense of self-enhancement and distinctiveness, but also and more importantly, a sense of self-continuity and self-determination. By adopting an experimental study design, this study aims to understand how these different professional identity motives relate to the valuation of external knowledge.

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User-centric hackathons, an open innovative approach to bridge the beneficiaries-contributors gap existing in governance, policy making and societal challenges

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Research Plan Presentation (2 minutes)

Keywords: User-centric hackathons, Open Innovation, Beneficiaries involvement, User-centered, Social inclusion, Societal challenges

The ongoing demographic trends and chronic health conditions increase coincides with over 1 billion people living with some form of disability. Therefore, this societal challenge must not be considered as a minority as almost everyone is likely to experience some form of disability – temporary or permanent – at some point in life. In addition to that, the ongoing COVID-19 crisis has increased even more the importance for assistance and the urgent need to scale up disability inclusion at all levels of the community systems. It is well-established that Hackathons are an enabler for democratizing open innovation and users are a source of innovation. Nevertheless, limited insights have been made to understand the value of user involvement within the innovation process and how the user-centric process could affect the traditional organizational management. This paper aims to determine how user-centric hackathons have a transformative potential for contributing largely on tackling social issues and social challenges in reaching sustainability. Specifically, it investigates whether the potential generalization of user-centric approach within open innovation practices as hackathons can bring a new theory of change for innovative policies addressing societal sustainability challenges such as disability inclusion. In this context, user-centric approach is defined as « (…) the capacity to involve various actors in problem-solving activities throughout the innovation process (…) » (Bilgram et al., 2008). This paper is grounded on open and user innovation practices and explores their value proposition to overcome issues on beneficiary involvement. A narrative study is applied adding to a case study analysis of user-centric Hackathon answering to challenges faced by people with disabilities to investigate on how the innovation process may evolve with organizations organizing hackathons using this user-centric approach, a value proposition for answering to social problems such as the inclusion of people with disabilities.

Save the date: OUI 2023 on June 20-22 @ Kühne Logistics University

In 2023, we hopefully meet again in person and discuss face to face without a screen in-between us. **Christina Raasch** invites you to Kühne Logistics University in Hamburg, Germany!

So stay tuned and check www.oui-society.org for updates and the upcoming call for papers.