Mod.No.

Seminar: Digital Innovation and its role for organizational transformation

Overview

Firms find themselves at the crossroads between digital innovation and transformation. New and emergent digital technologies, such as artificial intelligence, IoT, blockchain, or microprocessors, offer new opportunities for the creation of new infrastructures, products, processes, business models and organizational forms, and reshape traditional ways of organizing and working. At the same time, digital technologies are also increasingly more affordable and accessible to everyone, embedding themselves into society and altering the ecosystems in which firms operate. This fusion of digital technology within firms' environments produces ongoing changes in customer expectations, the competitive landscapes, and regulation. It is no longer only startups who innovate digitally and are leveraging the new opportunities provided by digital technologies, new ways of working, and the associated market changes. Large and small incumbents across a great diversity of different industries and geographies are embracing digital innovation activities, and as they scale them, they transform their entire organization. Within and across organizations, digital technologies give rise to new ways of collaboration, leveraging resources, development, and deployment over open standards and shared technologies. Firms are moving from stand-alone organizations to open, collaborative eco-systems in which multi-firms' networks collaboratively innovate with partners, suppliers, customers, and even competitors.

This situation asks the question of how digital innovation activities as drives of organizational change can effectively be managed by companies and leaders. This question is what this seminar will explore. We will examine a variety of topics related to digital innovation and transformation – such as (digital) technology management, digital product and process innovation or organizing for digital innovation – and explore the current state of research as well as examples on how these aspects are managed in contemporary firms. Students can select a topic of their choice from a list of available questions and explore a related question of their own choosing.

Learning outcomes

Students learn to…

...Apply discipline and technical knowledge and skills to analyse and evaluate technological influences on a range of managerial questions.
…Identify relevant technology management resources and capabilities.
…Select and evaluate different approaches to digital innovation management.
…Critically appraise different forms of digital transformation management.
… acquaint themselves with the scholarship of world class research faculty in the areas of digital innovation and transformation.
… learn some of the leading issues, theories and methodologies that characterize research in in the areas of digital innovation and transformation.

Contents

The following list of topic exemplifies the contents covered:

- Traditional technology management
- The advent of the digital age
- Digital Innovation Management
- Digital Transformation Management
- Digital ecosystems
- Workshops on how to design and write a seminar paper:
    - How to do a literature review
    - How to write a scientific paper
- Presentations of the student seminar papers
- Presentations and critical discussions of seminal scientific articles on digital innovation/ transformation

Preliminary Schedule

1. Kick-Off: Introduction and topic assignment (3 hours + break): TBD
2. Refresher workshops on how to design and write a seminar paper (2 x 2 hours): TBD
3. Topic presentations based on given research papers and discussion (1 day/ 7 hours + break): TBD
4. Presentation of the essays (1 day/ 7 hours + break): TBD

Required Readings

- By topic area, to be added

Assessment

Grading in this course is on three main components. Grading rubrics will be used and made accessible to the students in advance.

1. Presentation of seminal scientific paper on digital innovation / transformation (20% of final grade)
2. Submission of seminar essay (50% of final grade)
3. Presentation of seminar essay to the class (30% of final grade).

Seminar Topics

Topic 1	The technological dimension of digital innovation
	Properties and characteristics of digital technologies and how they can be exploited and managed
Topic 2	The organizational dimension of digital innovation
	Organizing for innovation: How do firms approach innovation processes and are in turn transformed due to digitalization?
Topic 3	The strategic dimension of digital innovation
	How do digital technologies influence the rationale of how an organization creates, delivers, and captures value?
Topic 4	Managing digital technologies
	- How do firms deploy and manage digital technologies? - In how far does this differ from traditional technology management? - The role of the CDO - …
Topic 5	Managing digital product innovation
	- How do digital technologies influence the properties of new products and their development? - Methods and tools in / for product innovation - The role of AI in product innovation - …
Topic 6	Managing digital process innovation
	- How do digital technologies influence how tasks are carried out? - The role of data - Modern technologies and how they are applied - …
Topic 7	The transformative effects of digital innovations
	- How do digital technologies influence traditional organizational structures and business strategies? - Challenges of incumbent firms - …
Topic 8	Managing digital ecosystems
	- How do digital technologies influence the rationale of how an organization creates, delivers, and captures value? - Digital business strategies - …
Topic 9	Sustainable digital transformation
	- How can digital process innovation contribute to environmental goals? - How can digital products innovation contribute to environmental goals? - How do firms use digital technologies for ESG purposes?

Teaching Team

Imke Grashoff completed her master's degree in the field of Social Economics and is working as a research assistant at the Chair for Information Systems and Digital Innovation. With a strong interest in topics involving the influence of digital technologies on organizations, collaboration and (the future of) work in general, she is currently pursuing her doctoral studies dealing with ethical issues in the context of AI design, development and deployment.

Stephanie Kitzler completed her master's degree in the field of Business Administration and is now working as a research assistant at the Chair for Information Systems and Digital Innovation, pursuing her doctoral studies.

Jan Recker is Alexander-von-Humboldt Fellow, Professor for Information Systems and Digital Innovation at the University of Hamburg, and Adjunct Professor at the QUT Business School, Australia.

In his research he explores the intersection of technology, people and work. He works with particularly large organizations, such as Woolworths, SAP, Hilti, Commonwealth Bank, Lufthansa, Ubisoft, Esri, federal and state governments, and with particularly small organizations ("start-ups") in the consumer goods, hardware, and financial sectors. He tackles questions in the areas of

- systems analysis and design practices in the digital age
- digital entrepreneurship
- digital innovation and transformation in large organizations
- digitalization of products, services, and processes
- digital solutions for a sustainable future

Jan's research in these areas draws on quantitative, qualitative, and computational methods. He has also written popular textbooks on scientific research and data analysis, which are in use in over 500 institutions in over 60 countries. He was Editor-in-Chief of the Communications of the Association for Information Systems from 2015-2020. He is Senior Editor for the MIS Quarterly**.** In 2019, he was named #1 business researcher under 40 years of age by the German Magazine Wirtschaftswoche. He was the youngest academic ever to be named an AIS fellow in 2018. In 2019, he received an "Outstanding Associate Editor Award" from MIS Quarterly. He publishes a podcast called "this IS research".

Contact details

e jan.christof.recker@ uni-hamburg.de
w http://www.janrecker.com/, https://www.bwl.uni-hamburg.de/isdi.html
t twitter.com/janrecker
l https://www.linkedin.com/in/jan-recker-10303b5/
p http://www.janrecker.com/this-is-research-podcast/