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# Empirical Research on (Corporate) Entrepreneurship

Seminar I of the Major Management

Prof. Dr. David Bendig | Ann-Katrin Eicke, M.Sc.

May 2023



# Let us introduce ourselves

## Who we are



**Prof. Dr. David Bendig**

Head of Chair of Entrepreneurship



**Ann-Katrin Eicke, M. Sc.**

(incoming) Research Assistant at the Chair of Entrepreneurship

## Research focus

- Behavioral leadership and organization
- International strategy
- Entrepreneurship and innovation

- Technology management (i.e., corporate AI strategy)
- Innovation management
- Corporate strategy

## Working experience

- The Boston Consulting Group: Top Management Consultant
- Founder and business angel
- Assistant Professor at RWTH Aachen

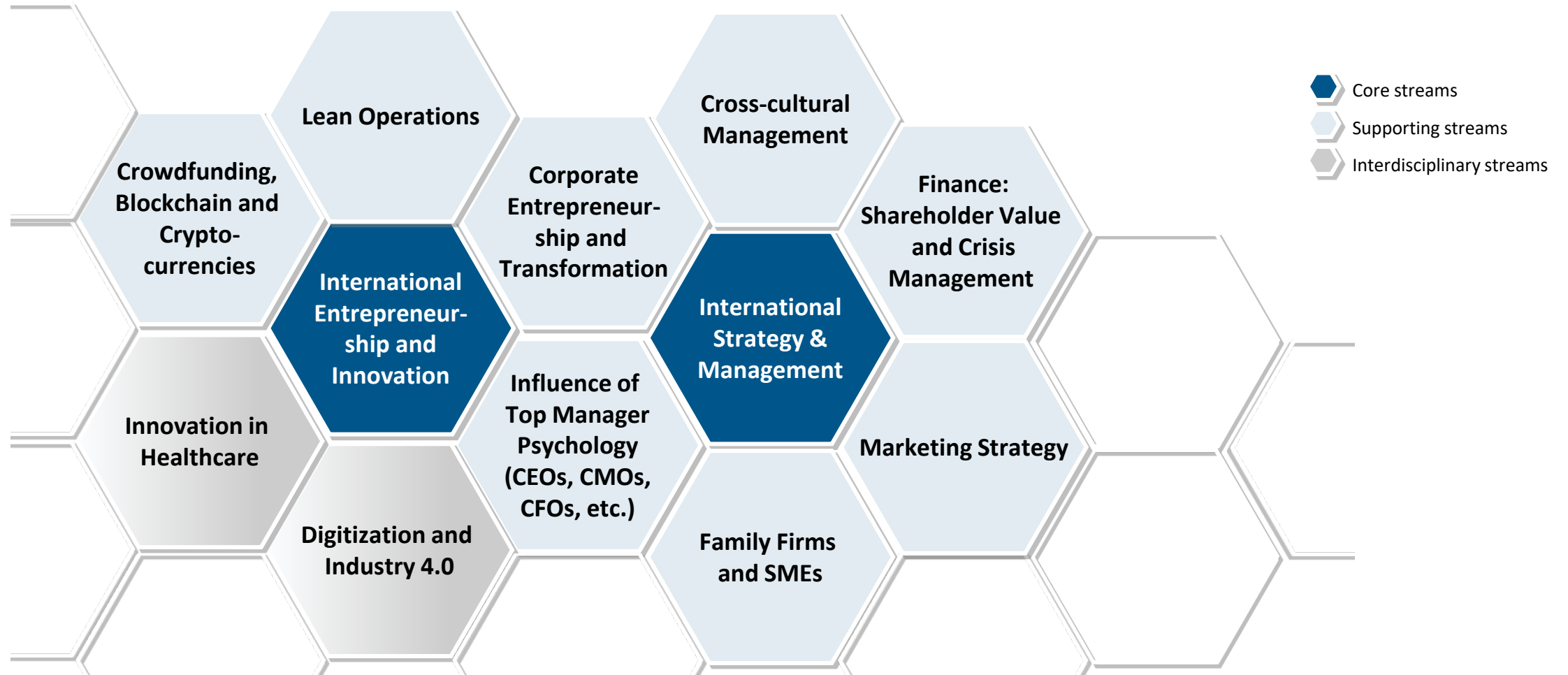
- Helaba Paris, innovationLab Frankfurter Sparkasse, German Parliament: Internships
- Executive education on digital topics in the finance sector

## Educational background

- Head of Chair of Behavioral International Management at OVGU Magdeburg
- Ph.D. at RWTH Aachen University
- Tsinghua University Beijing: Lecturer and visiting scholar
- Catholic University Eichstätt-Ingolstadt: Master of Science

- University of Münster: Master of Science
- University Paris I Panthéon-Sorbonne : Exchange semester
- University of Mainz: Bachelor of Science

# The chair of Entrepreneurship offers a diverse selection of topics



# Fact Sheet: Empirical Research on (Corporate) Entrepreneurship



## Focus of the course

- Understand the **latest scientific methods** of (Corporate) **Entrepreneurship**
- Familiarize yourself with **Stata**, academic **literature**, and **writing** theses

## What to expect

- **Analyze large data sets** using empirical and methodological techniques
- **Optimally prepare for your Master thesis**
- **Get first-hand insights in strategic work**
- Tackle a real-life problem of **Miele** based on **customer-centric innovation techniques**

## Format

- **12 ECTS** within the framework of the PO Master (2022) **for the Major Management**

## Deliverables for grading (in groups)

- **Seminar paper**
- **Presentation of seminar paper**
- **Collaboration with corporate partner (incl. final presentation)**

## Application

- CfM internal **registration period**: **10.05.2023 - 28.05.2023**
- **Registration forms are available** on the CfM website ([www.wiwi.uni-muenster.de/cfm/](http://www.wiwi.uni-muenster.de/cfm/)) and can be filled out directly on the site

# The course grading consists of three components



## Written paper: Seminar paper

Summarize your findings in a seminar paper as part of a team and provide your do-files

### Grading criteria

- Critical discussion of the topic
- Theoretical positioning in the scientific context
- Derivation of the developed hypotheses
- Scientific method / analysis (incl. do-files)
- Compliance with formal requirements (see chair guidelines)

**Length:** max. 25-30 pages (excl. appendix)

**Combined weight:** 60%



## Oral presentation: Research state

Prepare a presentation on the current state of research (same team)

### Grading criteria

- The presentation reflects the essential content of the seminar paper
- Clear structure
- Appealing visualization / free style of presentation
- Keeping to the time frame

**Duration:** 30 minutes (incl. 10 minutes Q&A)



## Project presentation: Consulting project

Present the results from your consulting project for a corporate partner (same team)

### Grading criteria

- The presentation provides actionable advice and clear recommendations to the company (feedback from partners)
- Clear structure
- Appealing visualization / free style of presentation
- Keeping to the time frame

**Duration:** 30 minutes (incl. 10 minutes Q&A)

**Weight:** 40%

## You can choose between five topics

#	Area	Topic
1	Strategy & Innovation	Looking behind closed doors: Implications of C-level characteristics for (digital) innovation
2	Strategy & Innovation	With a little help from my friends: Focusing on the who, when, why, or what of collaborative innovation
3	Strategy & Technology	Who becomes digital and why? Firm- or industry-level drivers of digital orientation
4	Strategy & Technology	Digital wins? Performance implications of digitally oriented companies
5	Strategy & Organization Studies	We need you?! A longitudinal assessment of networks for firms' performance and behavior

# Looking behind closed doors: Implications of C-level characteristics for (digital) innovation

## AUTOMOBILES

### Hyundai's first female director: Diversity can drive innovation



A CEO's Guide to Leading Digital Transformation

RELATED EXPERTISE: DIGITAL TRANSFORMATION, DIGITAL HR, LEADERSHIP DEVELOPMENT

#### A CEO's Guide to Leading Digital Transformation

MAY 22, 2017

By Martin Dierkes, CEO, Growth Partners, and Tony Baskin

Forbes

INNOVATION

### Innovation And Board Of Directors



Politik Finanzen Perspektiven Klima Wiss

Clarivate™

Nachrichten > Finanzen > Wirtschafts-News > Elon Musks Vision

Trotz Twitter-Eskapaden

#### Vom Mars bis ins Gehirn: Das sind die Visionen von Elon Musk

### Clarivate Reduces Board Size

6 Lessons All Entrepreneurs Can Learn from Amazon Founder Jeff Bezos

- The **board of directors** develops strategic decisions and drives a firm's **innovation**.
- Recent discussions about **gender diversity** in the board and the reduction of **board size** as well as the emergence of specific top management **roles**, e.g., CIOs, raise questions on how these changes affect firms' innovative performance.
- You will examine **top management team characteristics** as antecedents of **innovative performance or behavior**.
- You can focus on innovation in **general** or on **digital innovation**.



# Looking behind closed doors: Implications of C-level characteristics for (digital) innovation



## Seminar paper objectives

- Analyze **antecedents** of (digital) innovation on the C-level, e.g.,
  - TMT roles
  - Board size
  - Tenure
  - Gender diversity
- Consider possible **nonlinearities**, if any.
- Examine moderators (**contingencies**), e.g., environmental factors, firm size, board interlocks, etc.



## Potential theories

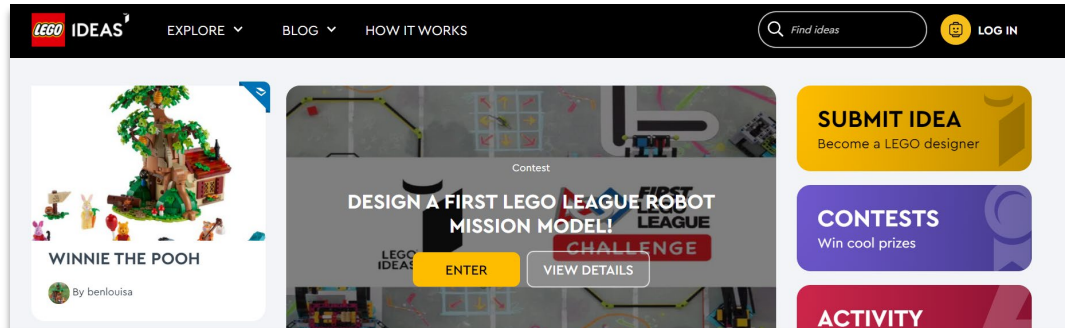
- **Upper Echelons Theory**
  - Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193-206.
- **Attention-based View**
  - Ocasio, W. (1997). Towards an attention-based view of the firm. *Strategic Management Journal*, 18(S1), 187-206.
- Others depending on your research focus



## Exemplary literature

- Robeson, D., & O'Connor, G. C. (2013). Boards of directors, innovation, and performance: An exploration at multiple levels. *Journal of Product Innovation Management*, 30(4), 608-625.
- Bendig, D., Wagner, R., Jung, C., & Nüesch, S. (2022). When and why technology leadership enters the C-suite: An antecedents perspective on CIO presence. *The Journal of Strategic Information Systems*, 31(1), 101705.
- Firk, S., Hanelt, A., Oehmichen, J., & Wolff, M. (2021). Chief digital officers: An analysis of the presence of a centralized digital transformation role. *Journal of Management Studies*, 58(7), 1800-1831.
- You, Y., Srinivasan, S., Pauwels, K., & Joshi, A. (2020). How CEO/CMO characteristics affect innovation and stock returns: findings and future directions. *Journal of the Academy of Marketing Science*, 48, 1229-1253.

# With a little help from my friends: Focusing on the who, when, why, or what of collaborative innovation



BIONTECH News Events & Presentations Financials Corporate Governance ESG

## BioNTech Signs Collaboration Agreement with Pfizer to Develop mRNA-based Vaccines for Prevention of Influenza

16 August 2018

The New York Times

Bloomberg

• Live Now Markets Economics

Business

## Toyota-Panasonic's Battery Venture

*Amazon, Berkshire Hathaway and JPMorgan Team Up to Try to Disrupt Health Care*

- In recent decades, companies have increasingly relied on **innovation collaborations** to innovate successfully. By collaborating with external partners, companies can access **new ideas, technologies, and expertise** that they may not have in-house.
- The forms of collaborative innovation range from **R&D alliances** to **Joint Ventures** and **customer co-creation**.
- You will either examine when, why, or which companies engage in collaborative innovation (**antecedents**) or the 'So what' of collaborative innovation in terms of performance **implications**.
- The initialization and success of collaborative innovation activities depends on a number of **contingencies**.

# With a little help from my friends: Focusing on the who, when, why, or what of collaborative innovation

## Seminar paper objectives

- Analyze **antecedents or implications** of a collaborative innovation approach, e.g.:
  - C-level characteristics
  - Industry-level drivers
  - Innovative performance
  - Financial performance
- Consider possible **nonlinearities**, if any.
- Examine moderators (**contingencies**), e.g., management capabilities for resource orchestration, industrial affiliation, or environmental factors.

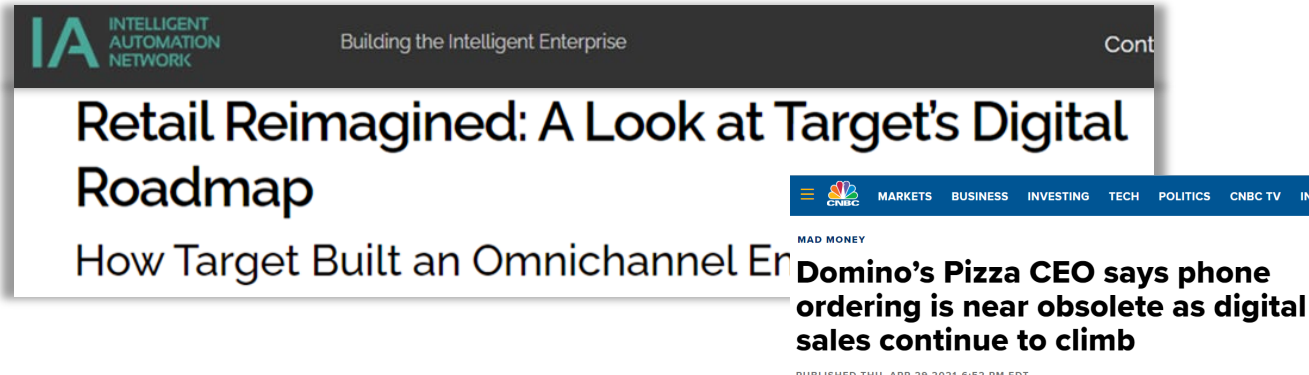
## Potential theories

- Antecedents:
  - **Upper Echelons** Theory (if C-level characteristics)
  - **Attention-based View** (if C- or firm-level characteristics or environmental drivers)
- Implications:
  - Literature on **Open Innovation**
  - **Resource-based View**

## Exemplary literature

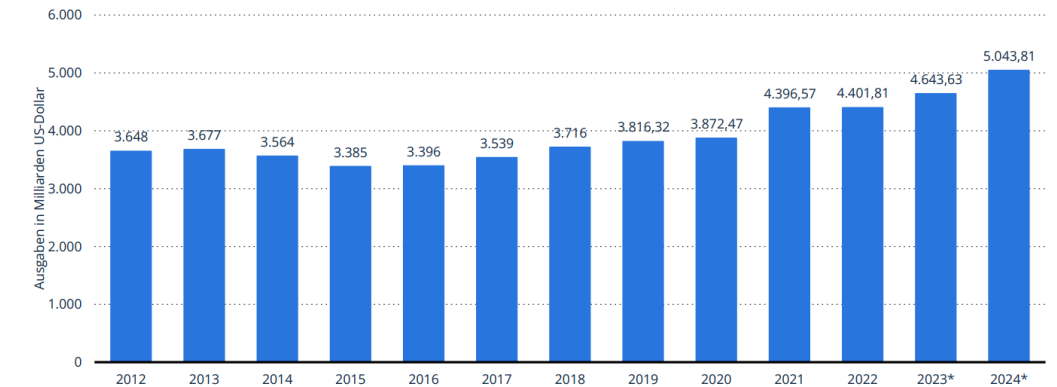
- Laursen, K., & Salter, A. (2006). Open for innovation: the role of openness in explaining innovation performance among UK manufacturing firms. **Strategic Management Journal**, 27(2), 131-150.
- Schäper, T., Jung, C., Foege, J. N., Bogers, M. L., Fainshmidt, S., & Nüesch, S. (2023). The S-shaped relationship between open innovation and financial performance: A longitudinal perspective using a novel text-based measure. **Research Policy**, 52(6), 104764.
- Stanko, M. A., Fisher, G. J., & Bogers, M. (2017). Under the wide umbrella of open innovation. **Journal of Product Innovation Management**, 34(4): 543–558.
- Sampson, R. C. (2007). R&D alliances and firm performance: The impact of technological diversity and alliance organization on innovation. **Academy of Management Journal**, 50(2), 364-386.

# Who becomes digital and why? Firm- or industry-level drivers of digital orientation



Prognose zu den weltweiten IT-Ausgaben von 2012 bis 2024 (in Milliarden US-Dollar)

Prognose zu den IT-Ausgaben weltweit bis 2024



Bezeichnung: Die Statistik bildet die weltweiten IT-Ausgaben bis 2022 ab und zeigt eine Prognose bis 2024. Last Quelle sollen sich die weltweiten IT-Ausgaben im Jahr 2023 auf rund 4,6 Billionen US-Dollar belaufen. [Quelle: Statista](#)

statista

- The **accelerated speed of digital transformation** disrupts entire industries. To keep up with these dynamics, companies invest in **digital technologies** such as Artificial Intelligence, cloud computing, and blockchain.
- To strategically plan, execute, and monitor digital initiatives, companies develop a **digital orientation**.
- Yet, what drives firms' degree of digital orientation?
- You will analyze how specific **firm/industry characteristics** affect companies' digital orientation.

# Who becomes digital and why? Firm- or industry-level drivers of digital orientation

## Seminar paper objectives

- Analyze **firm- or industry-level antecedents** of firms' digital orientation, e.g.:
  - Knowledge intensity
  - Slack resources
  - Environmental dynamism/munificence/complexity
- Consider possible **nonlinearities**, if any.
- Examine moderators (**contingencies**), e.g., management capabilities for resource orchestration, industrial affiliation, or environmental factors.

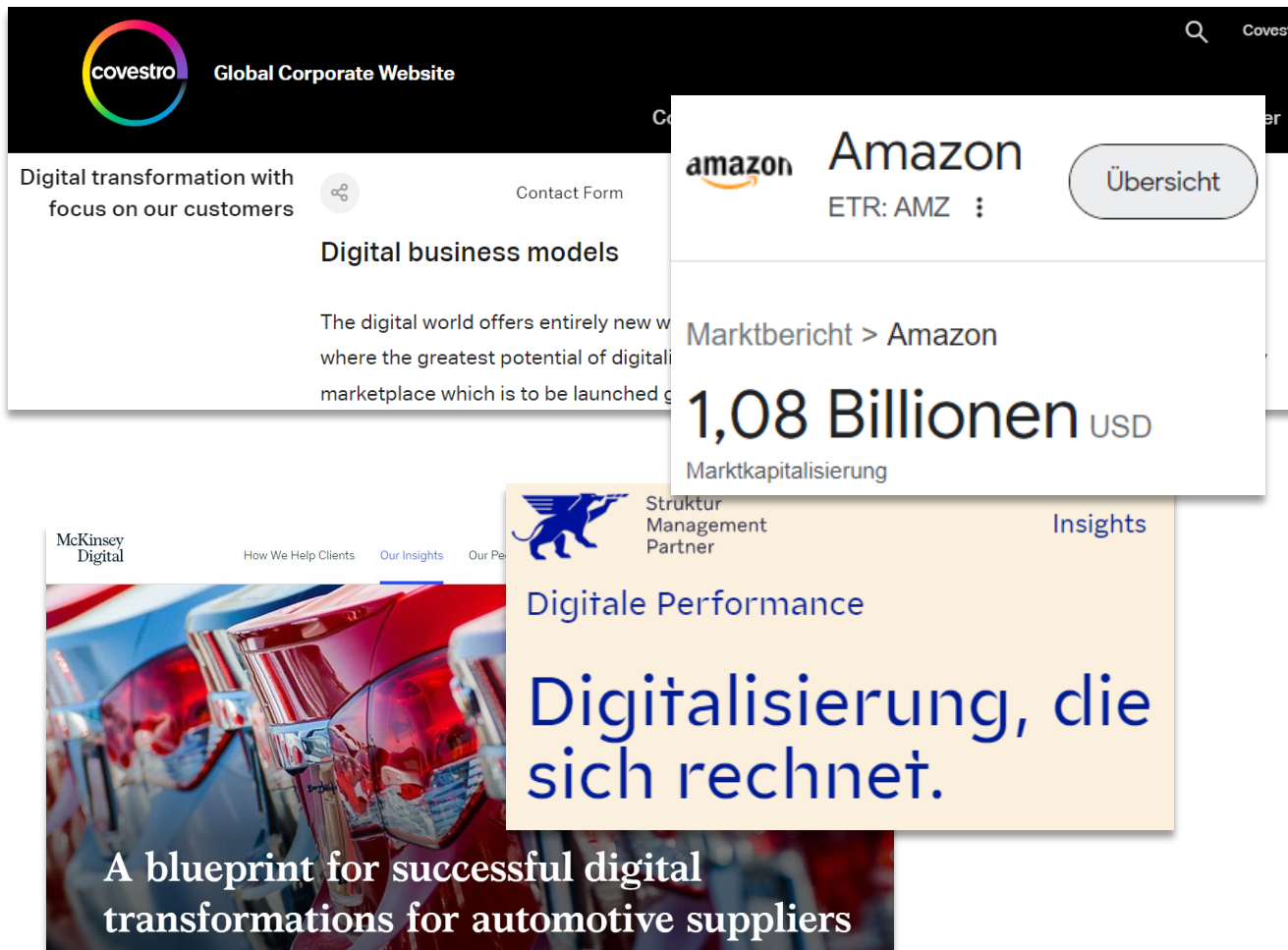
## Potential theories

- **Attention-based View**
- **Behavioral theory of the firm**
  - If slack or underperformance as drivers
  - Specific literature: Yu, W., Minniti, M., & Nason, R. (2019). Underperformance duration and innovative search: Evidence from the high-tech manufacturing industry. *Strategic Management Journal*, 40(5), 836-861
- Others depending on your research focus

## Exemplary literature

- Kindermann, B., Beutel, S., de Lomana, G. G., Strese, S., Bendig, D., & Brettel, M. (2021). Digital orientation: Conceptualization and operationalization of a new strategic orientation. *European Management Journal*, 39(5), 645-657.
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118-144.
- Alvarez, S. A., Zander, U., Barney, J. B., & Afuah, A. (2020). Developing a theory of the firm for the 21st century. *Academy of Management Review*, 45(4), 711-716.

# Digital wins? Performance implications of digitally oriented companies



- **Digital transformation** receives much attention as a success factor for gaining a **competitive advantage**.
- To strategically plan, execute, and monitor digital initiatives, companies develop a **digital orientation**.
- Still, the **implications** of firms' degree of digital orientation on corporate financial and innovative **performance** are yet mostly unclear, especially with regard to potential high initial investments
- You will analyze how firms' degree of **digital orientation** impacts companies' performance and shed light on potential **contingencies** (moderators) of this relationship.



# Digital wins? Performance implications of digitally oriented companies



## Seminar paper objectives

- Analyze **implications** of firms' degree of digital orientation, e.g.:
  - Innovative performance
  - Financial performance
- Consider possible **nonlinearities**, if any.
- Examine moderators (**contingencies**), e.g., management capabilities for resource orchestration, slack resources, or environmental factors.



## Potential theories

- **Attention-based View**
- **Knowledge-based View**
- **Resource-based View**
- **Dynamic Capabilities View**
- Others depending on your research focus



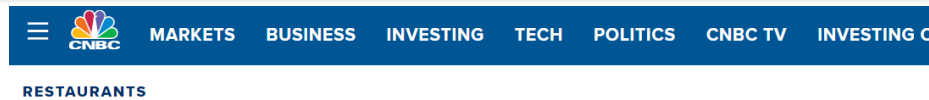
## Exemplary literature

- Kindermann, B., Beutel, S., de Lomana, G. G., Strese, S., Bendig, D., & Brettel, M. (2021). Digital orientation: Conceptualization and operationalization of a new strategic orientation. **European Management Journal**, 39(5), 645-657.
- Nambisan, S., Wright, M., & Feldman, M. (2019). The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. **Research Policy**, 48(8), 103773.
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. **Journal of Business Research**, 122, 889-901.
- Krakowski, S., Luger, J., & Raisch, S. (2022). Artificial intelligence and the changing sources of competitive advantage. **Strategic Management Journal**.

# We need you?! A longitudinal assessment of networks for firms' performance and behavior

## Rachel Glaser Joins The New York Times Company Board of Directors

NEW YORK--(BUSINESS WIRE)-- The New York Times Company announced today that Rachel Glaser, the chief financial officer of Etsy, Inc., has been appointed to its Board of Directors.



### Jay Hoag hires former Domino's CEO Patrick Doyle as chair

Director at Peloton

PUBLISHED WED, NOV 16 2022 5:00 AM EST | UPDATED WED, NOV 16 2022 5:36 AM EST

#### About

Jay Hoag has served as a member of the board of directors since August 2018. He has been a venture capitalist and technology investor for more than 37 years, co- founding Technology Crossover Ventures and serving as General Partner since June 1995. To date, TCV has raised more than \$15 billion in capital and emerged as a leading provider of growth capital to technology companies. Hoag currently serves on the board of directors of Tripadvisor, Inc., Zillow Group, Inc., and Netflix Inc. and several private companies. He also previously served on the board of directors of various public companies, including Electronic Arts until August 2021 and TechTarget, Inc. until July 2016. Hoag holds a B.A. from Northwestern University and an M.B.A. from the University of Michigan.

- Companies appoint TMT members of other firms to their board, resulting in **board interlocks**. For instance, the CEO of Peloton is part of the board of directors of Netflix. From a scientific perspective, these board interlocks represent **external social capital**.
- Depending on how firms build and leverage these networks, they may benefit in terms of **novel ideas, best practices, and resource access**. This can enhance the focal firm's performance.
- **Internal social capital** refers to firm-internal networks, e.g., resulting from TMT members with a long tenure.
- Internal networks enhance **knowledge sharing** but can also lead to **inertia**.



# We need you?! A longitudinal assessment of networks for firms' performance and behavior

## Seminar paper objectives

- Analyze **implications** of board / CEO social capital, e.g.:
  - Degree of digital orientation
  - Collaborative innovation
  - Innovative performance
  - Financial performance
- Consider possible **nonlinearities**, if any.
- Examine moderators (**contingencies**), e.g., gender diversity on the board, slack resources, environmental dynamism, market turbulence.

## Potential theories

- **Social capital**
- **Knowledge-based View**
- **Resource-based View**
- **Dynamic Capabilities View**
- Others depending on your research focus

## Exemplary literature

- Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. **Academy of Management Review**, 27(1), 17-40.
- Bendig, D., Foege, J. N., Endriß, S., & Brettel, M. (2020). The Effect of Family Involvement on Innovation Outcomes: The Moderating Role of Board Social Capital. **Journal of Product Innovation Management**, 37(3), 249-272.
- Cao, Q., Simsek, Z., & Jansen, J. J. (2015). CEO social capital and entrepreneurial orientation of the firm: Bonding and bridging effects. **Journal of Management**, 41(7), 1957-1981.
- Tian, J., Halebian, J., & Rajagopalan, N. (2011). The effects of board human and social capital on investor reactions to new CEO selection. **Strategic Management Journal**, 32(7), 731-747.

# Research avenues offer a plethora of exciting research questions

/ EXEMPLARY

## Innovation strategies



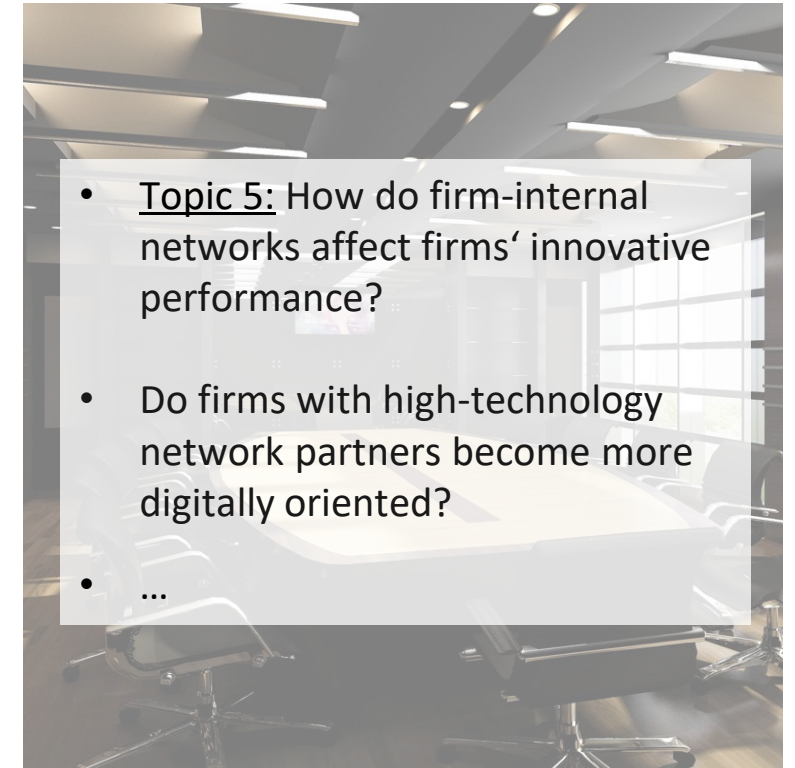
- Topic 1: How do TMT characteristics affect companies' propensity to innovate?
- Topic 2: What are antecedents or implications of collaborative innovation strategies?
- ...

## Digital orientation



- Topic 3: Why do some firms engage more in digital orientation than others?
- Topic 4: How does digital orientation impact firm performance?
- ...

## Networks



- Topic 5: How do firm-internal networks affect firms' innovative performance?
- Do firms with high-technology network partners become more digitally oriented?
- ...

*Classic regression analysis*

**Miele**

# Hidden Helpers @Laundry

Gütersloh, May 2023



Miele has been one of the world's most successful premium brands and provides competence since more than 120 years in laundry



Miele's first Meteor washing machine



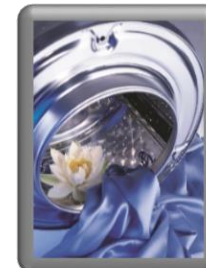
Miele powered washing machine – with attached motor



First Miele tumble dryer for households



Miele washing machine W760 – the new generation with 5 kg loading capacity and 1,200 spin cycle speed



New innovation: the drum with honeycomb surface



Success story to be continued...

1899

1901

1910

1923

1930

1958

1971

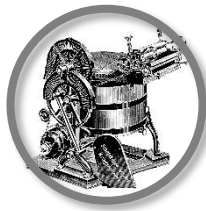
1981

1991

2001

2013

2024



Miele washing machine with an electric wringer



Miele all-metal washing machine No. 100 – allows the washing water to be heated up



Miele washing machine W432 – one of the best-selling washing machines



Miele washing machine W923 WPS – world's fastest washing machine with Novotronic controls



New laundry care generation W1/T1



## Our product portfolio

Sales flow into the  
LD business result



Washing machines



Tumble dryers



Washer-dryers



Accessories & Consumables

We need you to look for **hidden helpers** to  
make the lives of our customers easier!

## Your Task



**Identify and validate a problem within laundry care!**



**Develop an idea for a product to solve that problem!**



**Estimate the sales potential for your idea!**



## Expected results



**Pitch deck with a maximum of 20 slides**

**Business Case**

**Solution pitch video (5min) → be creative**

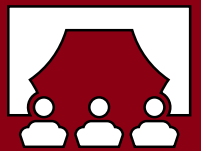
## Our input



**Given problem fields**



**Information package & weekly chance to ask questions + chance to 3D-print your idea**



**Problem pitch and solution pitch**



# Expected criteria for pitches



## Customer & Problem

What are the core problems in your field?

Describe your potential problemholders. How big is this group?

Describe your solution space based on your problems.

**Problem pitch**  
(min. 10 interviews with potential customers)



## Solution & Value

Having validated your first solution idea, what was the feedback of the potential users?

State your value proposition.

**Solution pitch**  
(A validation method of your choice)



## Why Miele?

Which potential solution out of the solution space would be interesting for Miele?

What is Miele's unfair advantage in your case?



## Growth Potential & Business Plan

How big is your market?

Which sales potential do you believe in and what should be our target margin?

What should be our target costs for the product?

## Problem fields

**1**

Folding laundry

**2**

Storing dirty laundry

**3**

Storing clean laundry

**4**

Simplifying the drying  
process

**5**

Simplifying the  
washing process

**6**

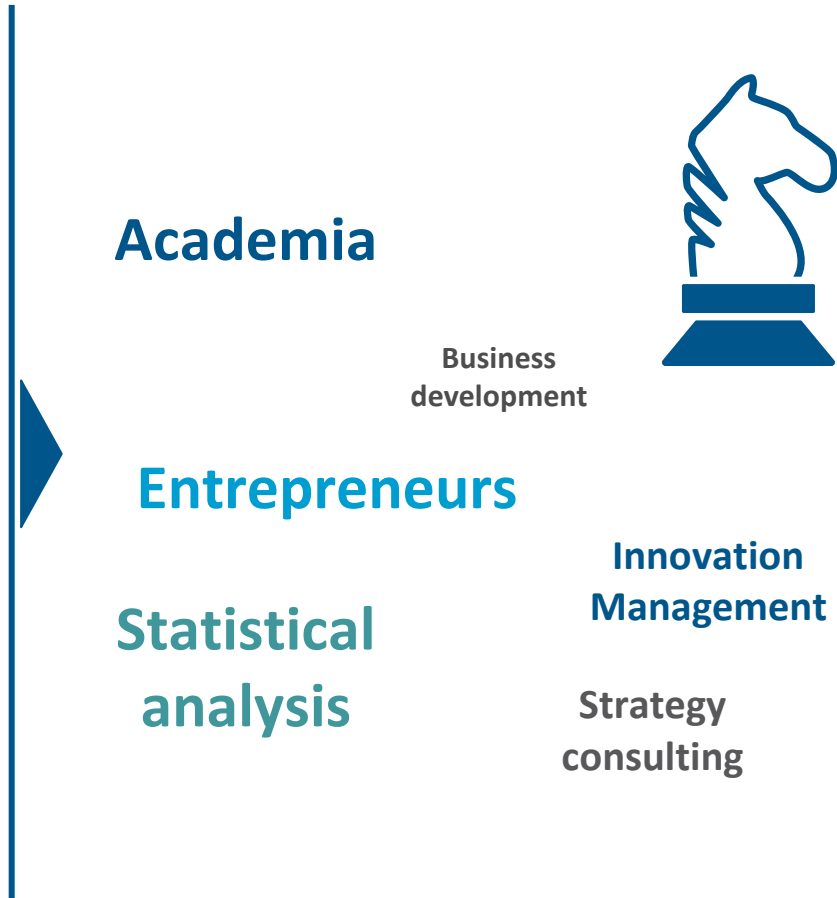
Shoe care

- Each field can be occupied by up to three teams. Not all fields need to be covered.
- You identify a problem within your chosen field and present it in the problem pitch.
- We are only looking for product ideas to solve your problem. No services. No business models. No software.
- We favor ideas that can be realized by 3D-printing [3D4U - Know-how meets 3D printing. | Miele](#)



# This course will introduce you to academic research, prepare you for your master thesis and expose you to project work

- The course will prepare you to **write your master thesis** through literature research, data crunching, and academic writing
- You will get to know **academic research** first-hand by analyzing and combining large datasets
- You will also get acquainted with **advanced tools for statistical analysis, i.e., Stata**
- You will work on **real-life business problems** for our **corporate partner** and provide **clear recommendations** as a **student consulting team**
- You will **learn to work collaboratively** and **diligently** since the course will be **challenging**



# Timeline for the seminar Empirical Research on (Corporate) Entrepreneurship

Date	Description
10 <sup>th</sup> – 28 <sup>th</sup> May 2023	Registration period
Mid June 2023	Allocation of seminar participants
Mid July 2023	Team allocation and survey about preferences
End July 2023	Kick-off consulting project
22 <sup>nd</sup> August 2023	Kick-off research project incl. topic and project allocation
August – December 2023	Working period in groups (incl. 3 feedback slots per group)
26 <sup>th</sup> – 27 <sup>th</sup> September 2023	Stata course from 9 am to 7 pm ( <i>optional but highly recommended</i> )
5 <sup>th</sup> November 2023	Submission of presentations of consulting projects
6 <sup>th</sup> – 10 <sup>th</sup> November 2023	Final presentations of consulting projects
1 <sup>st</sup> December 2023	Submission of seminar paper
7 <sup>th</sup> December 2023	Submission of seminar presentation
11 <sup>th</sup> – 12 <sup>th</sup> December 2023	Final presentations of seminar papers

You will be asked to:

- **Form groups** with your fellow students
- Vote for your **preferred research topic**
- Vote for a **consulting project you would like to work on**

# What we learned from last year and changed for this year

## Points of criticism last year

Minor unclarity regarding grading criteria

Insufficient preparation for academic writing

Packed due dates

Feedback slots too early

## Adjustments this year

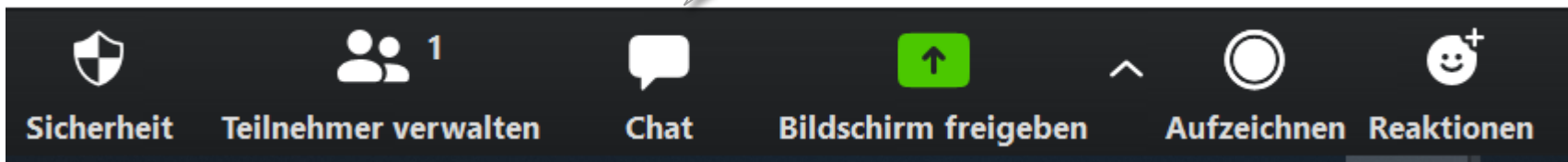
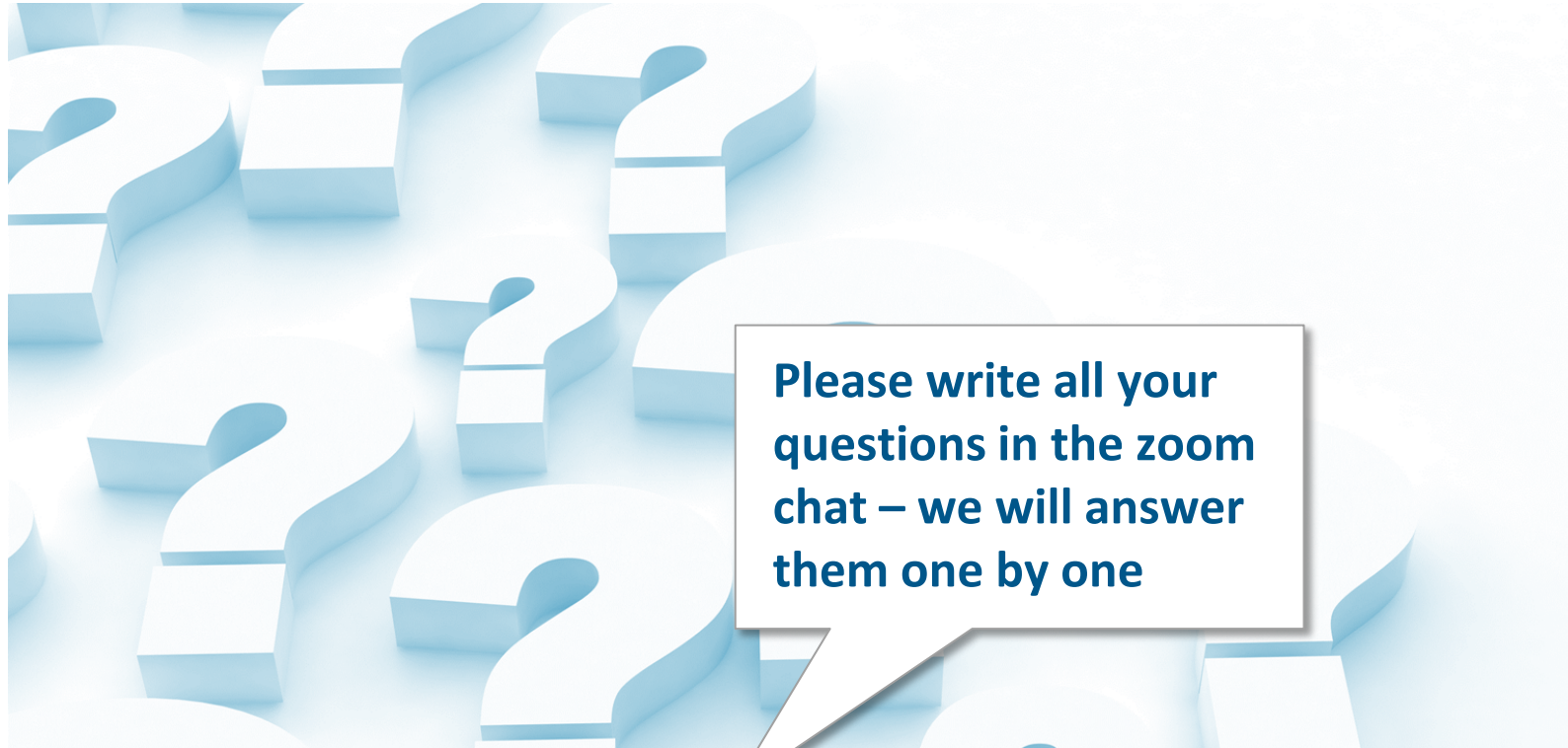
Provision of detailed, transparent grading criteria

Provision of additional sources on “how to write an academic seminar paper”

Untangled due dates

Feedback slots at a later point during group work

# Any open questions?



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... stay up to date on our **teaching offering** (e.g., new modules, upcoming deadlines)



... learn about current developments and the latest offerings from the **REACH ecosystem**



... receive exciting **job opportunities** from firms in our partner network



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