



ESSEC
BUSINESS SCHOOL

The pioneering spirit

MANAGING IT IN THE DIGITAL AGE

SESSION 1 – INTRODUCTION

Thomas Kude



Only around 50 companies have been in
the Fortune 500 list since 1955





How to lead digital disruption?

GOAL OF TODAY'S SESSION

With this session you will able to...

- Develop a joint understanding of IT management and digital transformation
- Structure the entire course according to our IT management framework
- Sketch what the different parts of the course will look like
- Plan your term and the workload for this course over the coming weeks
- Understand how you will be evaluated
- Develop a joint work procedure and atmosphere

WHO I AM

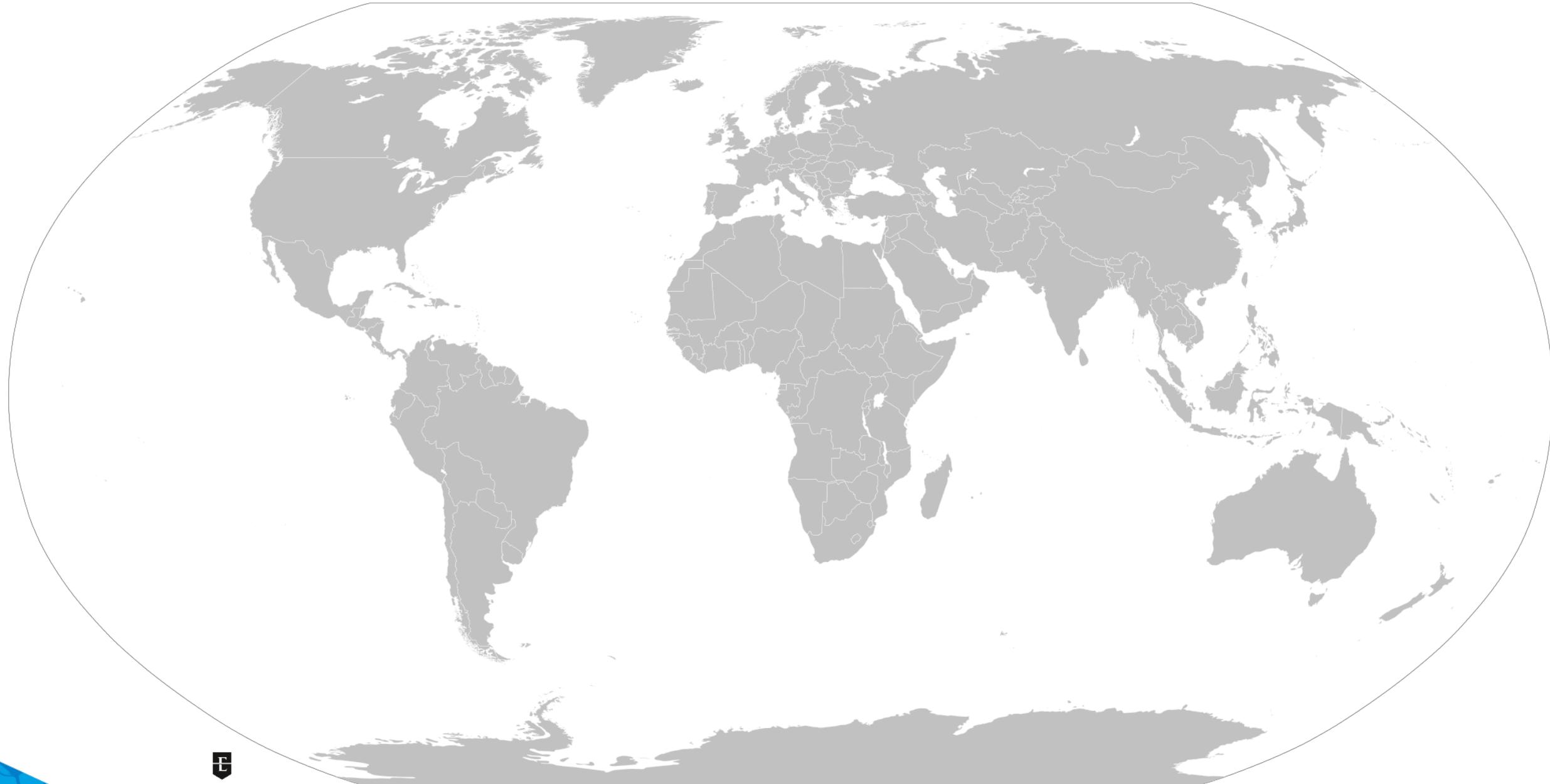
- **Thomas Kude**
- **Associate Professor** in Information Systems at ESSEC
- **PhD** in Information Systems at **University of Mannheim Business School**
- **Visiting researcher** at various North American universities, e.g., University of Maryland, Washington State University, University of British Columbia
- **Teaching and Research** on digital transformation, digital platforms, IT management at ESSEC, University of Mannheim, University of Bern
- ESSEC Foundation Research Award (2020), Best Published Paper in ISR throughout 2018 (2019), Association for Information Systems Early Career Award (2018),





And you?

WHERE ARE YOU?



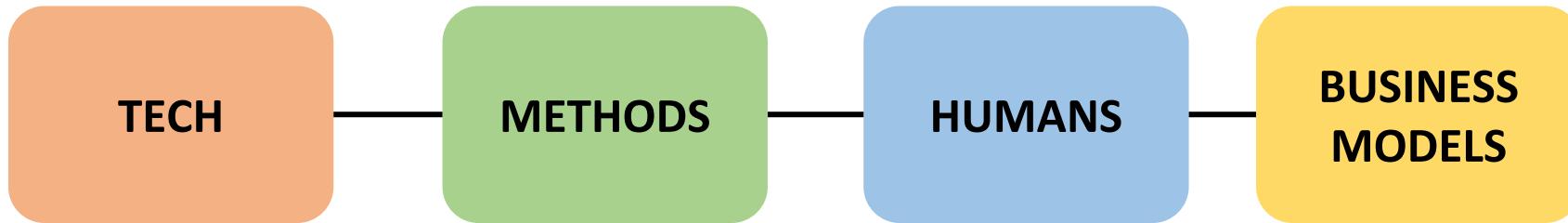
HOW ARE YOU DOING?

It's ok

I'm annoyed/struggling

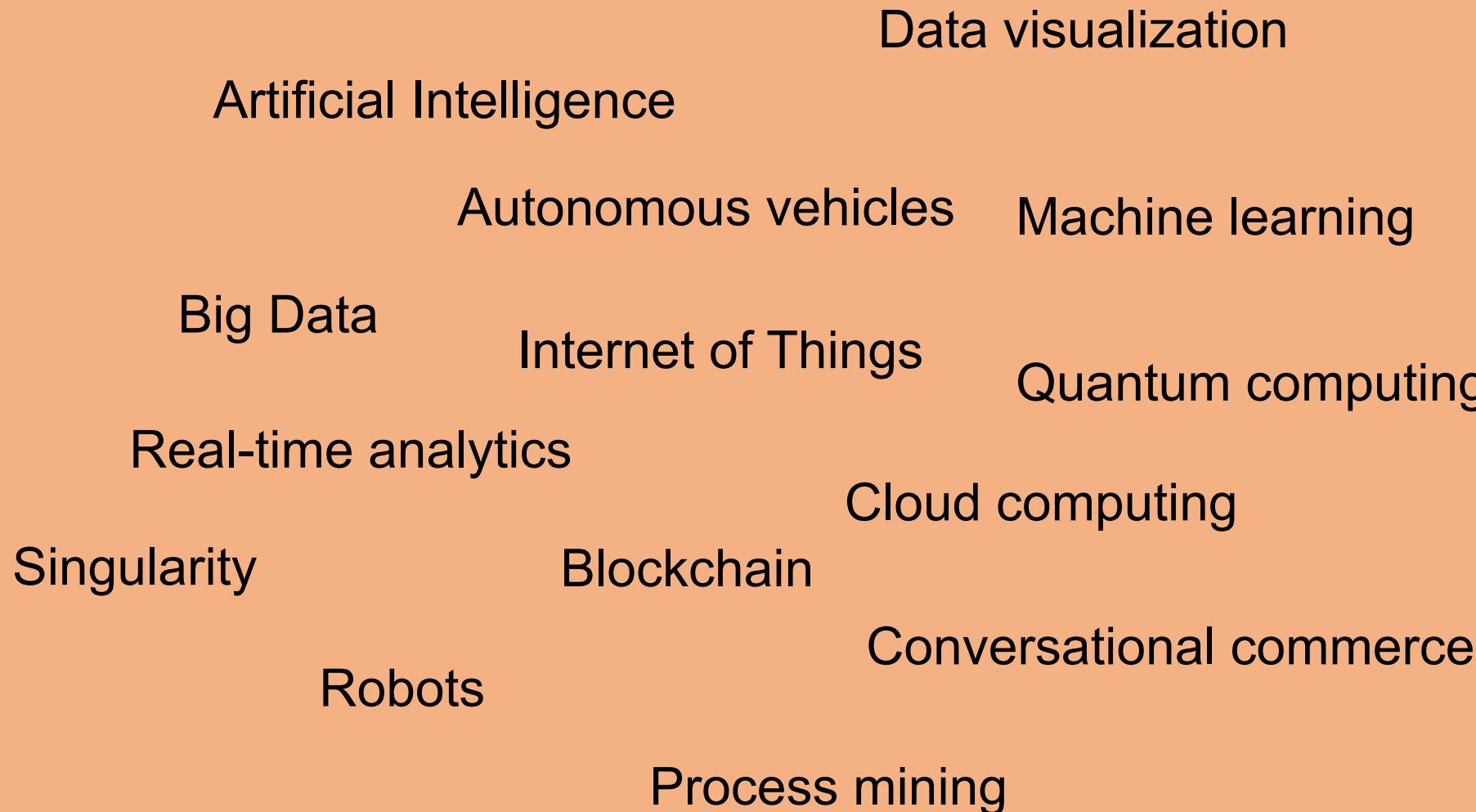
I'm doing great

THE DIGITAL AGE



Digital transformation comprises radical and ongoing changes as to how an organization delivers value to its customer building on digital technology

Digital TECH



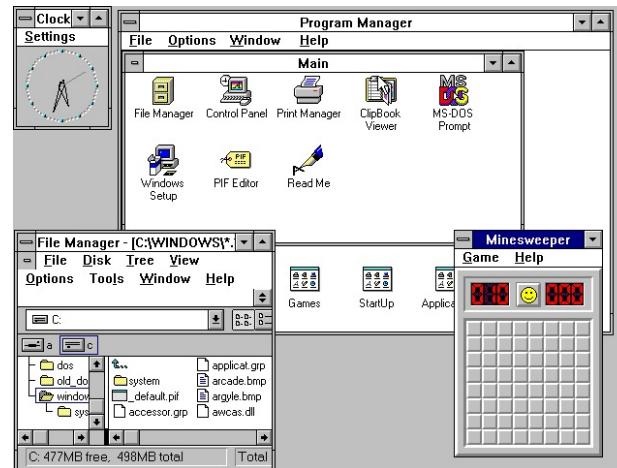


**“Software is eating the
world”** (Marc Andreessen)

Apollo 11:
145,000 lines of code



Windows 3.1:
~4 million lines of code



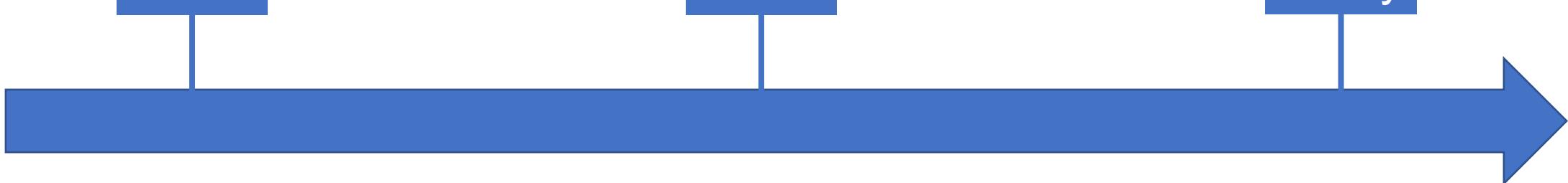
Average car:
~100 million lines of code



1969

1993

Today



DATA IS THE NEW OIL



01000100 01100001 01110100 01100001 00100000 01101001 01110011
00100000 01110100 01101000 01100101 00100000 01101110 01100101
01110111 00100000 01101111 01101001 01101100

2020 This Is What Happens In An Internet Minute



For every person on earth, 1.7 Megabyte of data is created every second

WE HAVE COME A LONG WAY FROM...



...TO



COMPANIES > GOOGLE (ALPHABET)

Google to Spend \$1.1 Billion on New Data Centers in Netherlands

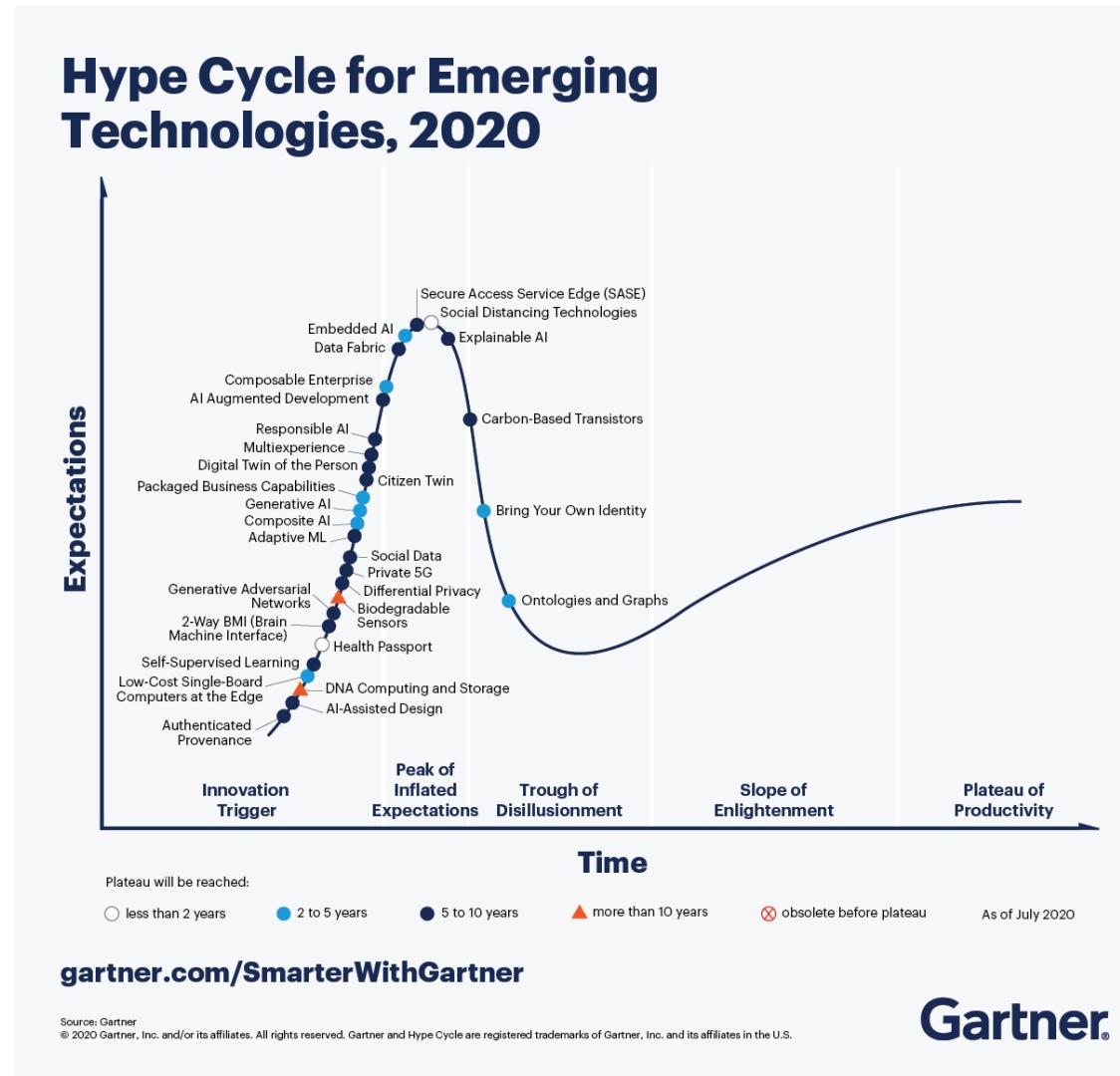
The expansions would bring its total Netherlands data center investment to 2.5 billion euros.

Bloomberg | Jun 24, 2019

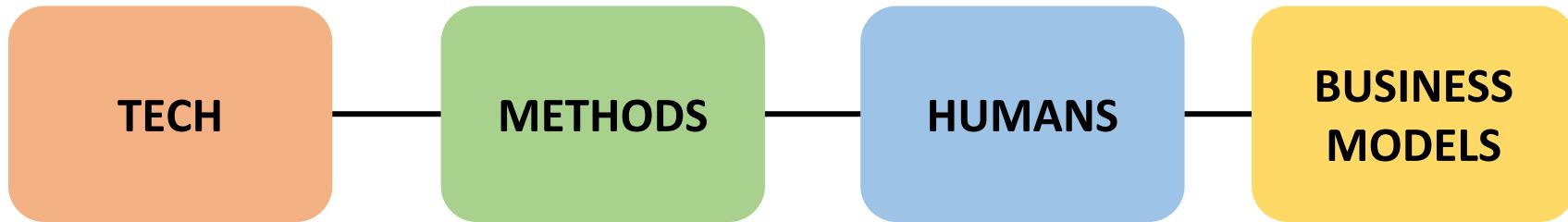


Google Data Center

(DON'T) BELIEVE THE HYPE!



THE DIGITAL AGE



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Digital METHODS

Agility

Scrum

Extreme programming

Design Thinking

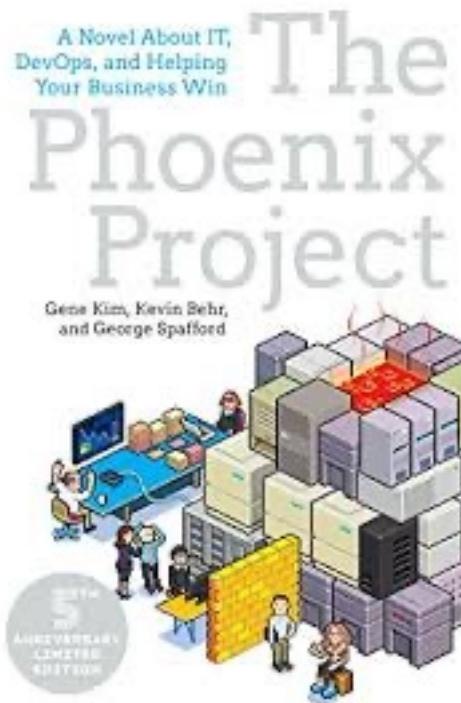
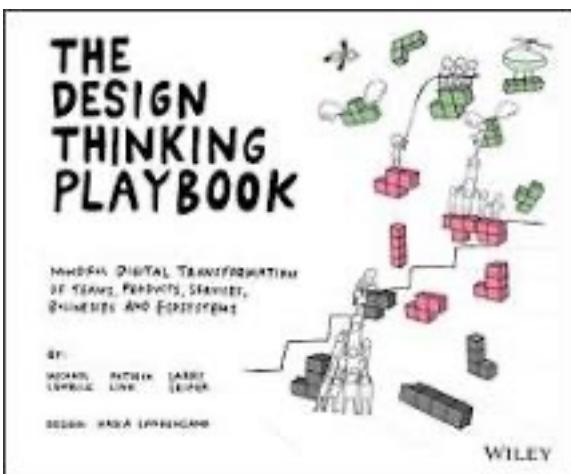
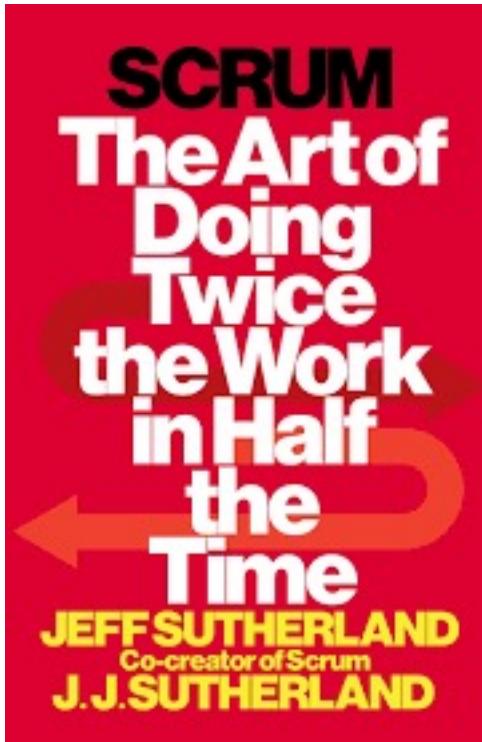
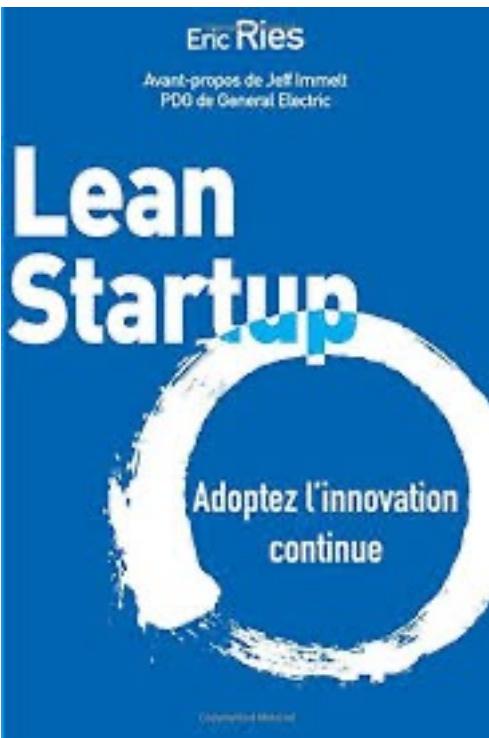
Kanban

DevOps

Lean startup

Business model canvas

Agile at scale



Digital HUMANS

Millenials

Augmented reality

Fablabs

Generation Z

Transhumanism

Cobots

Virtual reality

Technostress

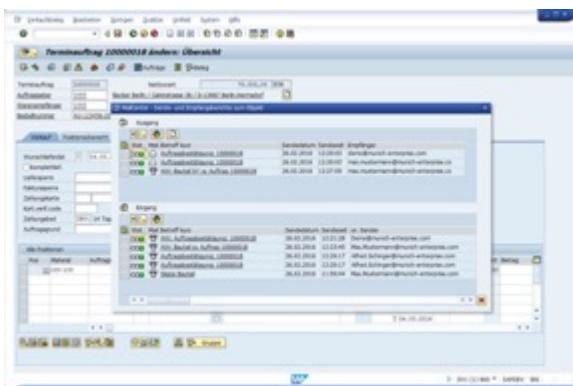
Hyper mobility

Digital detox

Privacy

ONTOLOGICAL REVERSAL

Representational
computing



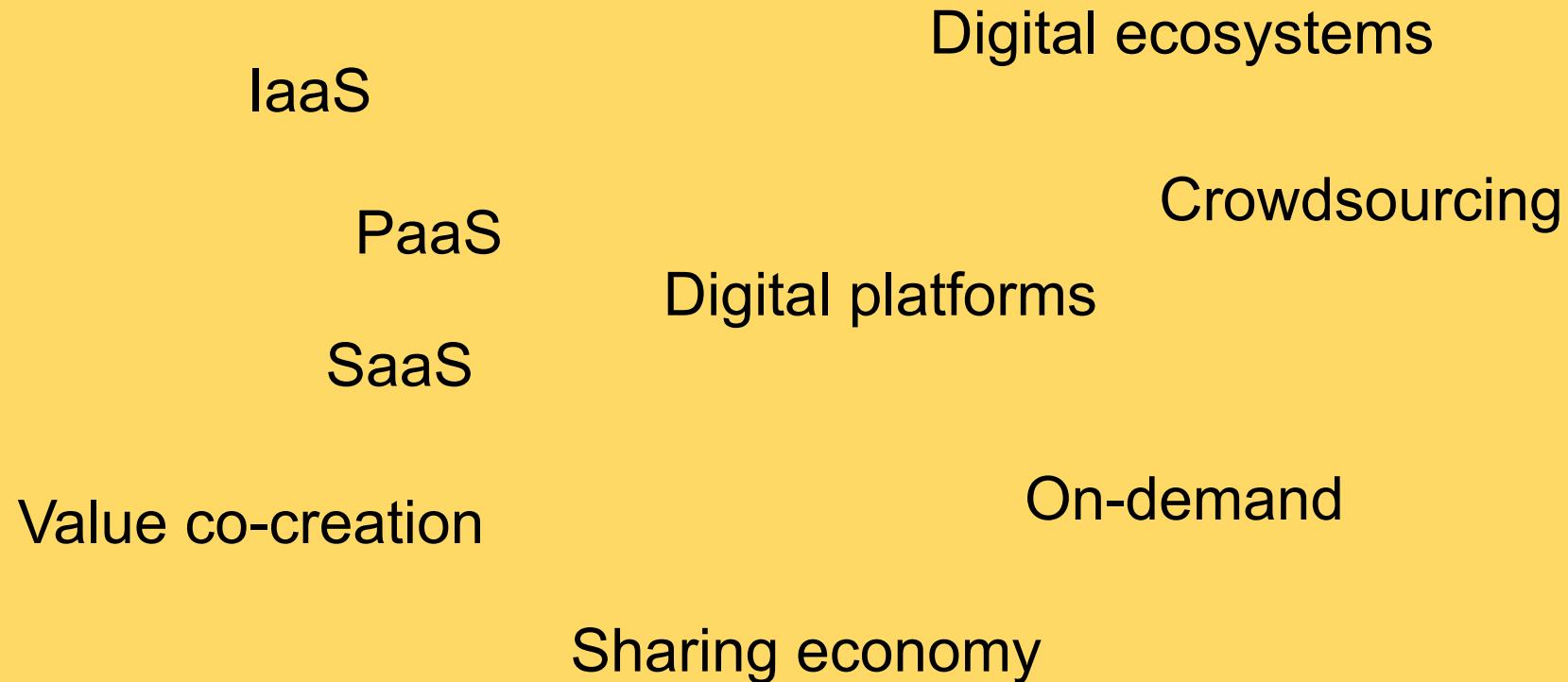
Imagined
computing



Experiential
computing



Digital BUSINESS MODELS



“ Everything that can become a platform will become a platform

Robin Chase, co-founder of Zipcar

DIGITAL PLATFORMS ARE EVERYWHERE

Infrastructure platforms



Consumer platforms



Crowdsourcing platforms



Industry platforms



Gig economy platforms

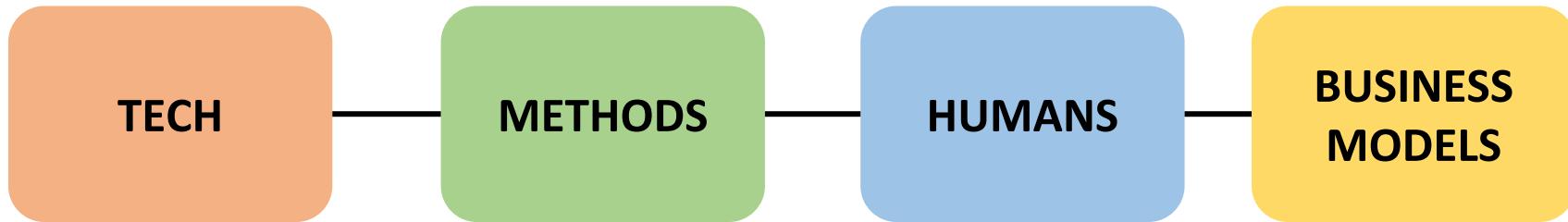


WHAT'S NEW ABOUT DIGITIZATION FOR ORGANIZATIONS? DIGITAL INFRASTRUCTURES

- Digital infrastructures are “the basic information technologies and organizational structures, along with the related services and facilities necessary for an enterprise or industry to function.” (Tilson et al. 2010, p. 748).



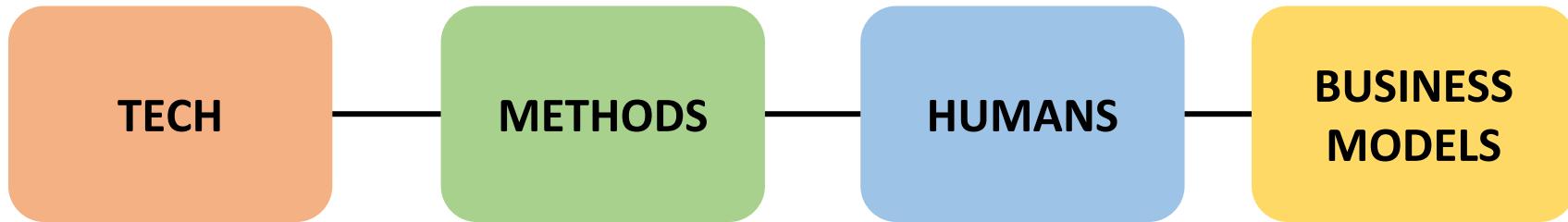
THE DIGITAL AGE



Digital transformation is
about connecting the dots

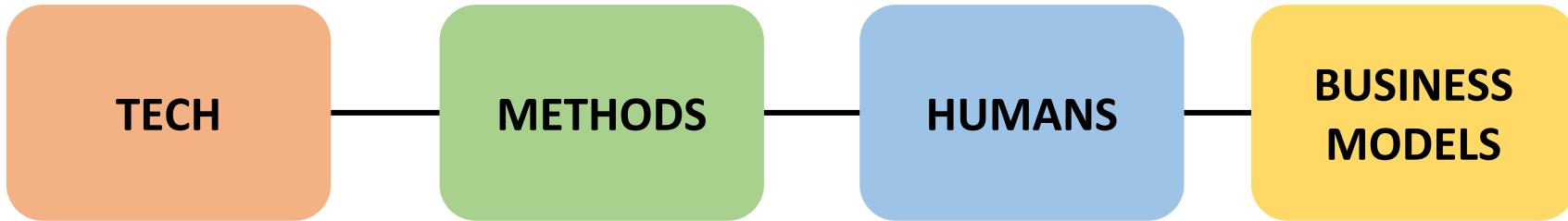
WHAT DO YOU EXPECT FROM THE COURSE?

THE DIGITAL AGE



Digital transformation is
about connecting the dots

MANAGING IT IN THE DIGITAL AGE



How does IT management look like in the digital age?

- What is IT management?
- How has it looked liked before?
- What is changing through digitization?
- What are successful organizations doing?

OBJECTIVES

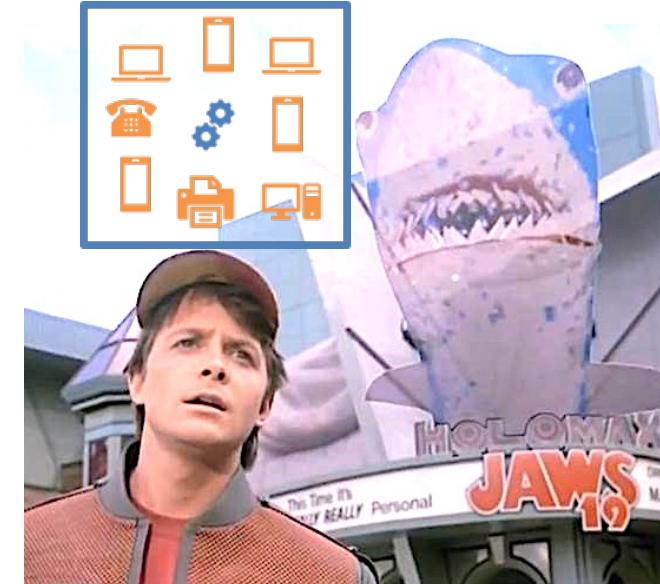


IT MANAGEMENT IN THE DIGITAL AGE

Traditional IT
management



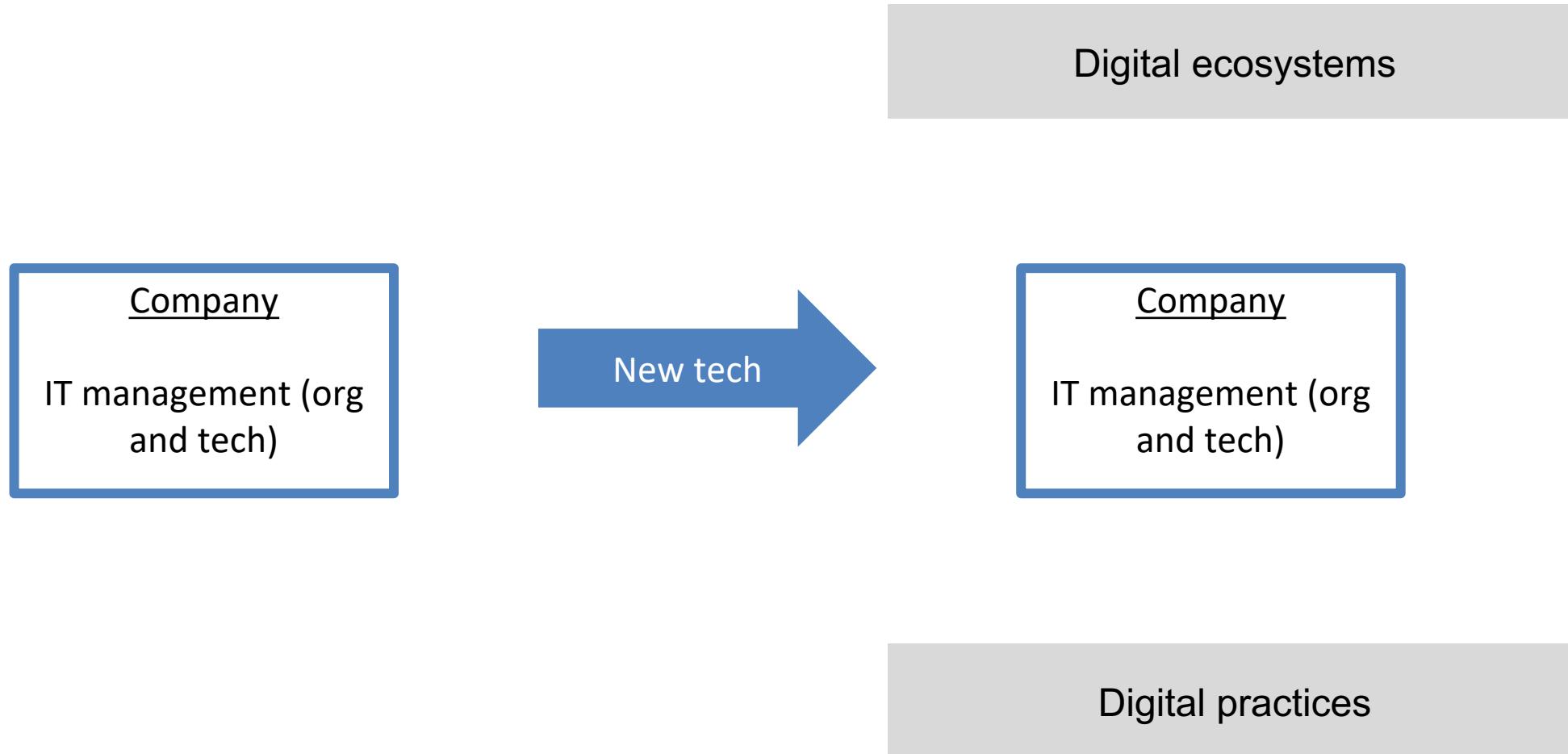
IT management in the
digital age



DATA TRANSFORMATION: THE DIGITAL MATRIX

The Digital Matrix	Experimentation at the edge	Collision at the core	Reinvention at the root
Digital giant			
Industry incumbent			
Tech entrepreneur			

FRAMEWORK: MANAGING IT IN THE DIGITAL AGE



THE COURSE WILL CONTRIBUTE TO YOUR ABILITY TO...

- Apply solid knowledge and capabilities about IT management
- Appraise new technologies and their impact on organizations and IT management
- Analyze the role of organization in a digital ecosystems
- Set up an agile IT organization for success in the digital age
- Critically reflect on the role IT management in the context of grand challenges, such as climate change, surveillance capitalism, and pandemics

COURSE CONTENT

Digital ecosystems

Session	Topic	Company	New tech	Company	Digital ecosystems
1 15/04	Introduction	IT management (org and tech)			Digital practices
2 29/04	Traditional IT Management 1/2 (Enterprise systems)				
3 06/05	Traditional IT Management 1/2 (IT sourcing and governance)				
4 17/05	Tech talks: IoT and edge computing, Quantum computing, 5G, Digital markets act, Corporate digital responsibility				
5 20/05	Tech talks: XaaS, Non-fungible tokens, Conversational UI, Digital health, EdTech				
6 27/05	Digital platforms				
7 03/06	Ant Financial case				
8 10/06	Agile transformation				
9 17/06	ING case				
10 24/06	Final Exam				



ASSESSMENT

- Class participation: 1/3
- Group presentation: 1/3
- Final exam: 1/3

TOPICS FOR TECH TALKS

Team	Topic
1	IoT and edge computing
2	Quantum computing
3	5G
4	Digital markets act
5	Corporate digital responsibility
6	XaaS
7	Non-fungible tokens
8	Conversational UI
9	Digital health
10	EdTech

Groups (10)**Group members****GROUPS**

Groups (10)	Group members	User count
Group 1	Asrorbek ORZIKULOV, Chiara PALMA, Kavya SHIRKE, Maria Isabel VERA CABRERA, Basma WEHBE, Xinran YAO	6
Group 10	Ying DING, Lucas HÉRAL, Håkon SANDAKER, Marinie TAO, Qiyun WU	5
Group 2	Yago Alessandro BARDI VALE, Anna Holm BIEBER, Enrico BURIGANA, Lionel HOLZAPFEL, Hedi MASMOUDI, Vincent WILMET	6
Group 3	Ross GUTHERY, Alia HAJJI, Hannah HO-LE, Tabea REDL, Lu WANG, Yixin ZHAO	6
Group 4	Sampurna GERA, Felix HANS, Ismail KHALIL, Zhenning LI, Jiaqian MA, Johanna OTT	6
Group 5	Jedrzej ALCHIMOWICZ, Louise DE LEYRITZ, Sarah-Charlotte GRU, Louis LE BRET, Sofya SIMAKOVA, Meduri VENKATA SHIVADITYA	6
Group 6	Nevina Bankim DALAL, Benjamin KARAOGLAN, Michele NASINI, Hugo SAILHEN, Brunehilde SENELLART DE VRIERE, Miao WANG	6
Group 7	Alice DARY, Louis DE COMARMOND, Vivian KOUTROUMANI, Suer LIN, Matteo SALVALAGGIO	5
Group 8	Caterina CONZ, Thomas GAK DELUEN, Xinyu HU, Konstantinos MIRA, Stefano MONETA	5
Group 9	Arthur COLL, Laure DASSY, Patrick LEYENDECKER, Sauraj SAURAJ VERMA, Aoshuang XIE	5

GROUP PROJECT

- Work together on a slide deck to be submitted on May 16
- Prepare for 15 minutes presentation plus 5 minutes Q&A
- Cover the following topics:
 - Tech/topic introduction (main part)
 - Business and IT management implications (short)

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10 24/06	Final Exam				

SUMMARY

- Learning goals and evaluation of the course
- General framework and structure
- Digital transformation is about connecting digital tech, digital methods, digital humans, and digital business models
- Organizational boundaries are blurring as digital ecosystems and digital services emerge
- Managing in IT in the digital age means setting up an IT organization that helps organizations be successful in this context

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