

# Digital Transformation

**EM4LEM48B1**

## Program

**PGE**  
Visitants

## UE

Digital Transformation

## Semester

B

## Discipline

Information systems management

## Contact hours

27 H

## Number of spots

45

## Open to visitors

Yes

## Language



## Coordinator

Sven Volker REHM



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## List of lecturers

Lecturer(s)	Email	Contact hours - lecture
Sven Volker REHM	<a href="mailto:sven.rehm@em-strasbourg.eu">sven.rehm@em-strasbourg.eu</a>	27 h

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**Pedagogical contribution of the course to the program**

## No educational contribution associated with this course for this program.

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### Description

#### Introductory Summary

The course provides an introduction of how digital business is conceived today from a management perspective. It introduces to the changing role of current information systems and new technologies for digital business and strategy. Participants learn how information systems support designing and managing digital businesses, how digital business transformations are managed, and how to evaluate challenges and opportunities arising from novel information technologies in the context of digital business and digital strategy.

#### Teaching Methods

The course follows the Active Learning concept and comprises interactive in-class sessions and self-study of online materials.

Foundational topics such as concepts, principles, frameworks or theories are presented through online materials (readings, videos and online quizzes). On request, lecture-style discussions deepen the understanding of concepts. Factual knowledge and information complementing the lecture contents are acquired through self-study or as part of group work.

Interactive, workshop-style analysis of real-world examples, exemplary situations, selected problem settings or case studies allows participants to engage in discursive decision-making processes, integrating competing or diverging views on socio-technical challenges. Class discussions focus on illustrating practical relevance and academic positioning of selected issues. Exercises deliver basic skills regarding business, organizational and IS analysis and design as well as project management. Foresight scenario building allows participants to immerse into socio-technical design issues as group assignment. The course is delivered as blended learning course, featuring presence and online synchronous sessions (only if required) as well as asynchronous online sessions for self-learning. Performance evaluation is implemented in form of continuous assessment, to allow for (a) early indications and control of individual performance, (b) increased sense of inclusiveness, and (c) personalized learning pace. Group work comprises oral and written contributions (presentation assignments, workshop notes, set-up of wikis, discussion threads, blogs). Peer evaluation is used for control of individual performance during group work.

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### Teaching methods

#### Face-to-face

- Lectures
- Tutorials
- E-learning

#### In group

- Exercises
- Oral presentations
- Projects
- Case studies/texts

#### Interaction

- Discussions/debates
- Games (educational, role play, simulation)

## Others

**No items in this list have been checked.**

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## Learning objectives

### Cognitive domain

Upon completion of this course, students should be able to

- - (level 1) **define** 1. Define and describe the changing role of digital technology for business. (C1)
  - - (level 2) **differentiate** 5. Differentiate and classify major aspects of digital transformation for business. (C2)
  - - (level 3) **apply** 7. Apply models of value contribution to strategic digital change questions (C3).
  - - (level 4) **analyze** 9. Analyze and assess requirements for digital transformations from a management perspective. (C3, C4)
  - - (level 6) **construct** 12. Construct and modify a digital (transformation) strategy for a firm. (C5)
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### Affective domain

Upon completion of this course, students should be able to

- - (level 2) **participate** 15. Participate to discussions of issues related to digital technology in class. (A2)
  - - (level 3) **accept** 14. Accept the importance of continuous digital change for business. (A1)
  - - (level 4) **relate** 20. Recognize responsibility for consideration of implications of technology use. (A4)
  - - (level 5) **verify** 17. Value social impacts of digital technology. (A3)
  - - (level 5) **display** 21. Display a professional commitment to social, ethical and organizational challenges through the usage of digital technology in business. (A5)
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## Outline

(Topic coverage depending on class progress and selection of optional topics)

1. Digital Business and Digital Economy
2. Digital Transformation
3. Value from Data: Internet-of-Things (IoT) and Smart, Connected Products
4. Business Ecosystems & Digital Platforms
5. Digital Business Strategy
6. Digital Innovation
7. Digital Business Models & Business Model Transformation
8. Technology Trends in Digital Business Innovation
9. Future of Work
10. Future Work Systems

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## No prerequisite has been provided

### Knowledge in / Key concepts to master

- Knowledge of the basic functions of business (e.g., Introduction to Business Administration)
- Knowledge of the foundations of information systems (e.g., Introduction to Management Information Systems)
- The following courses of the EM Strasbourg Data Culture Certificate program are recommended: Digital Business I (lecturer: Rehm) and Data Culture I (lecturers: Plotkina/Rehm). For students in the PGE, these courses are mandatory part of their studies. If you study in another program at EM, you can inquire for participation via e-mail to Sven-V. Rehm, sven.rehm@em-strasbourg.eu. You receive a certificate for concluded courses.

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## Teaching material

### Mandatory tools for the course

- Computer

### Documents in all formats

- Newspaper articles
- Case studies/texts
- Worksheets

### Moodle platform

- Upload of class documents
- Interface to submit coursework
- Assessments
- Coaching/mentoring

### Software

- Pack Office (Word, Excel, PowerPoint, Access)

### Additional electronic platforms

**No items in this list have been checked.**

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## Recommended reading

Main reading material

- will be defined in class.

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## Additional literature

### Optional Readings

- Management Information Systems:

- o Laudon, K. C., & Laudon, J. P. (2020). Management Information Systems: Managing the Digital Firm (16th/Global Ed.), Pearson. (Primary Reference)

- o Valacich, J., & Schneider, C. (2016/2018). Information Systems Today: Managing in the Digital World (7th/8th ed.), Pearson.

- o Hoffer, J. A., George, J. F., & Valacich, J. S. (2017). Modern systems analysis and design (8th Ed.), Pearson.

- o (German language textbook identical to Laudon and Laudon 2020): Laudon, K. C., Laudon, J. P., & Schoder, D. (2016). Wirtschaftsinformatik: Eine Einführung (3. Aufl.), Pearson.

- Technology & Innovation Management

- o Jabri, M. 2012. Managing organizational change: Process, social construction and dialogue. Basingstoke: Palgrave Macmillan.

- o Newell, S. 2009. Managing knowledge work and innovation (2nd ed.). New York: Palgrave Macmillan.

- o Xenikou, A., & Furnham, A. 2013. Group Dynamics and Organizational Culture: Effective Work Groups and Organizations. Basingstoke: Palgrave Macmillan.

- o Ahmed, P. K., & Shepherd, C. 2010. Innovation management: Context, strategies, systems, and processes (1st ed.). New York, NY: Pearson Prentice Hall.

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## **EM Research: Be sure to mobilize at least one resource**

Textbooks, case studies, translated material, etc. can be entered

Junglas, I., Goel, L., Rehm, S.-V., & Ives, B. (2022) On the Benefits of Consumer IT in the Workplace—An IT empowerment perspective, *International Journal of Information Management*, 64(2022), 102478. DOI: 10.1016/j.ijinfomgt.2022.102478.

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## **Assessment**

### **List of assessment methods**

**Intermediate assessment / continuous assessment 1** Other (date, pop quiz, etc.) : as scheduled- multiple dates

Written and oral (15 Min.) / Group / English / Weight : 70 %

**Details :** Date: as scheduled (3 A1.1 assignments planned; additional AL depend on class progress) Mode: Teamwork, oral and written, on average 2-5min presentation per team member per assignment (if applicable) Assignment: Active learning exercises and workshops with playbook: documentation notes, presentation, class discussion, peer assessment (if applicable) Language: English Weight: 70% Details: These assignments consist of active learning exercises and group workshops in teams of 2-8 members (depending on class size and exercise type). They will use playbooks that implement active learning methods, e.g., foresight, self-reflection or explorative methods. The evaluation will usually comprise (a) submission of written documentation notes, (b) performance of a presentation or statement, (c) teamwork peer-evaluation (online), and (d) discussion participation and moderation.

**This evaluation is used to measure L01.1, L01.2, L02.1, L03.1**

**Intermediate assessment / continuous assessment 2** Other (date, pop quiz, etc.) : as scheduled

Written (60 Min.) / Individual / English / Weight : 30 %

**Details :** Date: as scheduled (during class, not in the first or final sessions; or as scheduled by program management) Mode: Individual, written, 60min (preferably online as LMS Moodle quiz) Assignment: Quiz, closed book Language: English Weight: 30% Details: This assignment tests lecture contents from self-learning phases and contents of class discussions.

**This evaluation is used to measure L01.1, L01.2, L03.1**

