

ENGAGE.EU Certificate
Joint Programme in Digital Transformation

Leading in the Digital Age

Course Syllabus

Karen S. Osmundsen

23-24 February 2024 & 12-13 April 2024

Course Abstract

Digital transformation implies an extensive organizational change driven and enabled by digital technologies. This could involve changes to the organization's business processes, business model, or even a new organizational identity. Such organizational change affects employees in different ways and prompts changes to both leadership approaches and leadership roles, which we address in this module.

The course consists of four main overarching topics:

1. Digital concepts and technologies
2. Digital trends
3. the Digital leader
4. the Digital organization

The first day, we will uncover what we mean by phenomena such as digitization, digitalization, digital innovation, and digital transformation. We will discuss characteristics of digital technology and look at different examples and cases of how digital technologies could affect the way business is conducted.

The second day, we will look at different "digital" trends, e.g., trends that drive changes in business models and are enabled by digital technologies, such as digital platform ecosystems, sharing economy, and sustainability.

The third day, we will discuss what it implies to be a "digital leader", including leader attributes and new leader roles, as well as topics related to the responsibilities of the digital leader, such as developing a digital strategy and ensuring the organization's digital maturity. The fourth day, we look at how digital transformation changes work design and leadership and discuss how employees might be affected in terms of competency requirements and digital technology adoption.

Learning Objectives

Upon completion of this course, the students should be able to...

- ...call out relevant and recent research on digital transformation.
- ...name emerging digital technologies and digital technology-enabled trends.
- ...analyse how emerging digital technologies and digital technology-enabled trends might enable organisational change.
- ...illustrate how digital transformation might affect employees in the organization.
- ...illustrate how managers might support the employees during and after the digital transformation process.
- ...analyse an organisation's current digital maturity.
- ...recommend measures leaders can take to increase the digital maturity.
- ...name important leader attributes and leader roles are important for managing in a digital age.

Evaluation and Grading

The course consists of lecture blocks, case studies, individual reflections, group discussions, and a final assessment in form of a group term paper.

Participants' grade will be composed of:

40% Individual participation (individual grade)

60% Group-based term paper (group grade)

Individual participation (40%)

40 % of the grade will be based on the student's active individual and active participation in the course. This includes the student's presence, participation in plenary and group discussions during the course, and sharing of own reflection.

Group-based term paper (60%)

60 % of the grade will be based on a term paper written in pre-defined groups of 2-4 students, where the groups can choose from different alternative assignments related to the topics addressed and literature presented in the course. The alternative assignments involve either conducting an interview study, a case study, or literature review. More details on the topics and content of the alternative assignments will be announced during the course.

The term paper should be on approximately 15-20 pages, with 1.5 line spacing,Calibri pt.11 font, and normal margins. The students will have approximately 2 months to complete their study and hand in the term paper.

Readings

Mandatory Readings:

Osmundsen, K., Iden, J., & Bygstad B. (2018) Digital transformation: Drivers, success factors, and implications. The 12th Mediterranean Conference on Information Systems (MCIS), Corfu, Greece, 2018

Schwarz Müller, T., Brosi, P., Duman, D., & Welpel, I. M. (2018). How does the digital transformation affect organizations? Key themes of change in work design and leadership. *Management Revue*, 29(2), 114-138.

von Ohain, B. P. (2019). Leader attributes for successful digital transformation. *International Conference on Information Systems (ICIS) 2019 Proceedings*.

Singh, A., & Hess, T. (2017). How Chief Digital Officers Promote the Digital Transformation of their Companies. *MIS Quarterly Executive*, 16(1), 5.

Complementary Readings:

Westerman, G., Tannou, M, Bonnet, D., Ferraris, P., & McAfee, A. (2012). The digital advantage: How digital leaders outperform their peers in every industry. MIT Sloan Management / Capgemini Consulting

Danilova, K., Iden, J., & Bygstad, B. (2022). Chief Digital Officers' Evolving Strategies: Balancing Lightweight and Heavyweight IT During the Digital Transformation. *HICSS 2022*

Osmundsen, K., Iden, J., & Bygstad B. (2019) Organizing Robotic Process Automation: Balancing Loose and Tight Coupling. *HICSS 2019*

Osmundsen, K. (2020) Competences for Digital Transformation: Insights from the Norwegian Energy Sector. *HICSS 2020*

Bygstad, B., Iden, J., & Ulfsten, A. (2020). Digital Business Strategies for Incumbent Firms. How a Scandinavian hotel chain competes with the internet giants. *Scandinavian Journal of Information Systems*, 32(2), 77-106

Meske, C., Osmundsen, K., Junglas, I. (2021) Designing and implementing digital twins in the energy grid sector. *MIS Quarterly Executive*, 20(3)

Gerwe, O., & Silva, R. (2020). Clarifying the sharing economy: Conceptualization, typology, antecedents, and effects. *Academy of Management Perspectives*, 34(1), 65-96.

Van Alstyne, M. W., Parker, G. G., & Choudary, S. P. (2016). Pipelines, platforms, and the new rules of strategy. *Harvard business review*, 94(4), 54-62.

Costabile, C., Iden, J., & Bygstad, B. (2022). Building digital platform ecosystems through standardization: an institutional work approach. *Electronic Markets*, 1-13.

Sessions

FIRST SESSION: 22 February 2024, 12 pm – 6 pm

Digital concepts and technologies

- Introduction
- Concepts: Digitization, digitalization, digital innovation, digital transformation
- Lightweight & heavyweight IT
- Characteristics and examples of digital technologies
- Case: Digital Twin

SECOND SESSION: 23 February 2024, 9 am – 3 pm

Digital “trends” and cases

- Introduction – digitally enabled trends driving business model innovation
- Digital platform ecosystems
- Case: Aquacloud
- Sharing economy
- Digitalization and sustainability

THIRD SESSION: 12 April 2024, 12 pm – 6 pm

The digital leader

- Leading in the digital age
- Digital maturity
- Digital leader attributes
- New leader roles: Chief Digital Officer (CDO)
- Case: Digital business strategies for incumbent firms

FOURTH SESSION: 13 April 2024, 9 am – 3 pm

The digital organization

- Digital transformation: Changes in work design and leadership
- Employee dimension
- Digital technology adoption
- Digital transformation competencies
- Agility and continuous development
- Presentation of and start working on group assignment (term paper)

About the Lecturer

Karen S. Osmundsen is an Associate Professor at the Department of Strategy and Management and the Digital Business research group at the Norwegian School of Economics (NHH). Her research interests include the socio-technical aspects of digitalization and digital transformation, including the requirements and implications for incumbent firms and the effects on employees and their roles.

Karen has a PhD in Information Systems / Digital Transformation from NHH and holds an MSc from NHH and a BSc from the Western Norway University of Applied Sciences (HVL). In between degrees and PhD, she gained work experience from different industries – including the shipping industry and working as a consultant within Strategy & Operations at Deloitte.

In her PhD thesis, which was defended in September 2021, she explored how in-cumbent firms could involve their employees in their digital transformations. Karen's teaching experience is related to topics within digitalization, digital transformation, digital management, and digital business understanding.