

Short title: Modern Age Leadership

Extended title: Navigating the Digital Frontier: Leadership Imperatives in the Modern Age

Digitalization shapes organizations and presents novel challenges that confront leaders in the modern era. Digitalization serves as a foundation for heightened value creation and sustainability in enterprises. Leaders are charged with dynamic capabilities and strategy awareness and need to refine their leadership skills and models to position the company competitively in the realm of the digital age. How does the digital transformation impact and foster new leadership models and skills in companies?

Managing technological changes is complex and multi-faceted for companies and leadership skills are impacted by such changes. Facing new technological revolutions including artificial intelligence (AI) and digitalisation, leadership must evolve accordingly. For example, the implementation of AI could lead to the deskilling of the workforce, less understanding of the actions of the technology, and worsened shared awareness among workers to adapt if the technology is not working sufficiently. In high-risk industries such as the petroleum industry, such a scenario could be devastating.

Human-machine interaction is known to change the work situation, and automatization, digitalisation, and increasing AI make people and organizations vulnerable due to their dependence on technology. This is relevant for businesses across industries and markets and does not affect only high-risk industries. Implementation of automation and AI might make humans' work difficult rather than easier and efficient due to e.g. potential design errors and a need for comprehensive skill sets. Additionally, complexity increases with less transparent technology, which further changes how to lead during such changes.

Understanding how to lead during technological changes is important for management across industries. Organizational learning is then relevant, where it is important that leaders facilitate collective learning, engage critical thinking, and promote collective sharing, and that such processes take place in an emotionally supportive and psychologically safe organizational milieu.