

Chapter 5

Management Challenges in the Digital Era

Radek Liska

University of Economics, Czech Republic

ABSTRACT

The chapter gives overview of factors that business leaders need to consider while leading their enterprise to new era of industry. Robotics, automation, and digitalization represent both an opportunity and a threat to any impacted company. The chapter introduces analysis of current trends in industrial world with focus on OECD countries. Also, it provides an overall summary of current changes to managerial roles and suggests how to steer transformation endeavor from multiple viewpoints. Furthermore, a set of general recommendations on reorganization matters towards agile structure is presented. Other challenges arising from i4.0 such as adjustments in education process and changes to employees' mindset are also addressed from managerial viewpoint. The final part of the chapter points out main conclusions and core message as well as areas of further research.

INTRODUCTION

Digital transformation represents a challenge to everyone in modern industry. Employees of impacted companies need to reconsider their skill sets and educate themselves to stay valuable even in an automated and digitalized process structure. Business leaders are under pressure to rebuild processes in entire companies to make them agile enough to sustain upcoming changes and later profit from such changes while redeploying the current labour force. Governments need to act and reflect changes in the structure of the desired workforce and enhance the education process accordingly to deliver technologically resourceful individuals.

Major changes such as this one, had occurred in the past. Hence, there are numerous approaches on how to deal with them. It is important to consider the nature and scale of the current changes and construct strategies that will endure rapid development and will be able to adopt emerging technologies. This chapter clarifies business and social development linked to current i4.0 transformation and gives set of recommendations on how to deal with them, while indicating possible future challenges and opportunities.

DOI: 10.4018/978-1-5225-8060-7.ch005

BACKGROUND

This chapter merges various research findings from large-scale studies such as ones conducted by OECD, McKinley consulting company, KPMG, Harvard University, and other institutions with a wide international impact.

The topic is discussed from multiple perspectives, both at the corporate/company level as well as from the individual. Regardless of being an entry level employee or an executive responsible for taking the right course of action while considering all discussed factors, everyone is impacted.

A set of recommendations is formulated as a conclusion of this chapter to summarize the most common suggestions presented in current published research. The i4.0 phenomenon provides numerous opportunities to grow both for the companies and employees as well. If well driven, transformation to the digital enterprise can be conducted without a massive negative impact on business processes and employee base.

ERA OF DIGITAL MANAGEMENT

Most business leaders are aware of the large changes that currently impact most industries. It is crucial that company executives understand what challenges they must deal with in the upcoming years. As well as what should be considered in advance to deliver successful business transformation in a changing and innovative world.

Issues, Controversies, and Problems

The impact of digital transformation is not only limited to technical aspects of the global industry. It also brings new challenges in the field of managerial work such as leading and managing teams, companies, or organizations. Many of the arising challenges are omnipresent in the business world, however there are some specifics exclusive to i4.0 transformation.

The everchanging way to manage organizations includes new ICT trends and globalization may be easy to comprehend by many managers, hence there is a risk to not recognize the full scale of this specific era. The inability to recognize such i4.0 specific trends may prove virulent to any future company development or managerial endeavours.

There are four main areas of interest that companies are most likely to encounter in the upcoming years. Any individual with a somewhat leading role in an organization that deals with i4.0 phenomenon, should consider the following questions:

- Change in structure of teams and employee's skillset – the structure of desired education and skill background is changing in all impacted departments.
- Possible employee jobs reduction that currently occupy automatable jobs – the company leadership may face pressure from labour unions and employees themselves to stall implementation of solutions that would lead to jobs reduction.
- Lack of support/motivation among company employees – the i4.0 trends are perceived as factors representing significant change to jobs framework and could lead to outplacements.

16 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/management-challenges-in-the-digital-era/222425

Related Content

The Contribution of Open Educational Robotics Competition to Support STEM Education and the Development of Computational Thinking Skills

Panagiotis Angelopoulos, Despoina Mitropoulou and Konstantinos Papadimas (2021). *Handbook of Research on Using Educational Robotics to Facilitate Student Learning* (pp. 539-573).

www.irma-international.org/chapter/the-contribution-of-open-educational-robotics-competition-to-support-stem-education-and-the-development-of-computational-thinking-skills/267684

Organ-Based Medical Image Classification Using Support Vector Machine

Monali Y. Khachane (2017). *International Journal of Synthetic Emotions* (pp. 18-30).

www.irma-international.org/article/organ-based-medical-image-classification-using-support-vector-machine/181638

Macroscopic Group Robots Inspired By "Brownian Motion"

Teturo Itami (2020). *Robotic Systems: Concepts, Methodologies, Tools, and Applications* (pp. 17-57).

www.irma-international.org/chapter/macroscopic-group-robots-inspired-by-brownian-motion/243997

Density-Based Clustering Method for Trends Analysis Using Evolving Data Stream

Umesh Kokate, Arviand V. Deshpande and Parikshit N. Mahalle (2020). *International Journal of Synthetic Emotions* (pp. 19-36).

www.irma-international.org/article/density-based-clustering-method-for-trends-analysis-using-evolving-data-stream/273633

On Realizing a Multi-Agent Emotion Engine

Shivashankar B. Nair, W. Wilfred Godfrey and Dong Hwa Kim (2011). *International Journal of Synthetic Emotions* (pp. 1-27).

www.irma-international.org/article/realizing-multi-agent-emotion-engine/58362