

# Social responsibility and ethical issues of implementation of the smart technology

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# INTRODUCTION

- ❑ In 21st century robots and smart technologies are going to effect on the changes in organizational processes. It will come to the coexisting between the human and smart technologies that are based on the artificial intelligence.
- ❑ The productivity gains achieved by the use of smart technologies may help to secure jobs and boost consumer demand with additional income (compensation effect), but the use of new production technologies and processes may also destroy jobs (redundancy effects).
- ❑ There are concerns that the redundancy effect of the smart technologies will predominate in the long run, leading to what is known as technological unemployment.
- ❑ Political leaders and managers should have begun today with the preparing of the adaptation measures which are necessary in the fields of education and employee development
- ❑ Ethical norms in the 21st century have to include norms for the protection of human dignity and quality of life, due to the possibility of loss of employment due to the implementation of the smart technologies.

# INTRODUCTION

## Technological development and organizational changes

- ❑ Thatcherism: 1979 – 1990
- ❑ Transformation of the "traditional heavy industry" into the technological development-oriented economy – process begin in Great Britain around 1980
- ❑ These processes of technological transformation prompted the formation of knowledge economy which had an important influence on organizational changes in strategies, structures and management styles

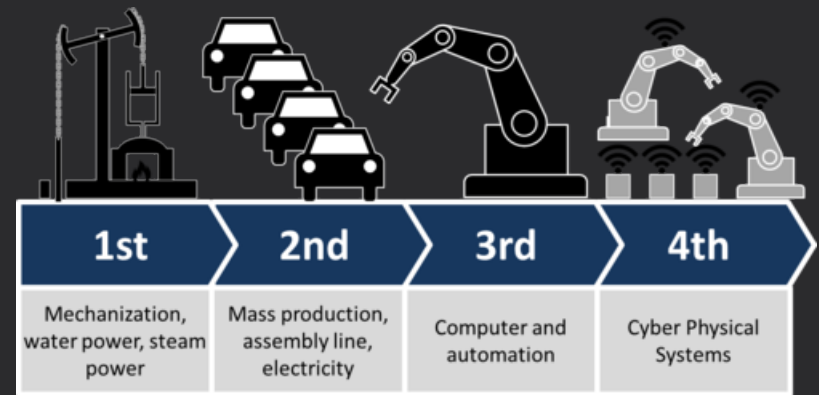


# Challenges for the new socioeconomic development

- ❑ Old economy: - 1980
  - ❑ New economy: 1980 – 2006
  - ❑ Innovative economy: 2007 – 2025
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- Transition from „traditional heavy industry“ into the technological development-oriented economy;
  - The new economy has influenced the emergence of global competition and the first global crisis was caused by the collapse of dot-com companies;
  - Emergence of the Internet and robots has influenced the rise of the third wave of capitalism (from 2005 - 2011);
  - Innovations of the smart technologies launched the fourth industry revolution – Industry 4.0 (from 2011-).

# THE RISE OF INDUSTRY 4.0.

- ❑ The development of IoT considered by some a new industrial revolution was named by Germany "Industry 4.0,,";
- ❑ One characteristic of Industry 4.0 is increased competitiveness through smart equipment, making use of information about high-wage locations, demographic changes, resources and energetic efficiency and urban production. The consequences will be felt at a loss of jobs and the creation of new ones, which today are not yet known;
- ❑ Just as the internet has transformed the digital industry, Industry 4.0 will completely transform the industry;
- ❑ The four key components of Industry 4.0 are Cyber Physical Systems (connection between the real and virtual world), the Internet of things, the Internet of services (IoS), and the smart factory. Machine communications (M2M) and smart products are not considered as independent parts.



# Business Ethics in smart technology era

Political and economic leaders today need to anticipate the circumstances that technological development will bring in the next 20 to 30 years and establish codes that will prevent the unethical actions of business owners and political elites. It will be necessary to find the answers:

## A: Society:

1. How to ensure relative economic equality in society: the issue of universal basic income, tax on robots and smart technologies
2. How to develop a culture of intolerance to the loss of dignity due to the introduction of new technologies
3. Sociological starting points

## B Organization:

1. Legal fulfil of ethical or discretionary responsibility to the society. For example, it means that the company fulfils ethical responsibility in a way that has given a certain worth to the society
2. The establishment of ethical rules on cooperation between humans and intelligent technology

# ETHICAL DIMENSIONS OF THE SMART TECHNOLOGY

- ❑ Technology is not an addition to human, but is, in fact, one of the ways in which mankind distinguishes itself from animals
  
- ❑ Widespread presence of the ICT have influence on the information flow that supports decisions and policies
  
- ❑ Negative social impacts:
  - ❑ unethical selection of information that is generated and collected leads to biased political decisions, bringing about greater inequality and discrimination
  - ❑ Issues related to ethnicity, culture or religion could emerge as a result of decision that lead to a loss of privacy for some minorities
  - ❑ Smart cities: violations of the principle of privacy of data collected (e.g. energy consumption, flat control with sensor because of the medical reasons...)

# SMART TECHNOLOGIES AND THE ETHICAL SYSTEM

- ❑ The ethical perspective of technology encompasses economic, social, institutional, and environmental dimensions:
  - ❑ Economic factors: ROI – in the case of the information storage has to be provided for the data security (manipulation) and quality insurance in citizens service
  - ❑ Social dimension: deciding in acting in concrete situation is a practical-moral problem. It refers to responsibility, in which the freedom and determinism of the human acts pertain to the realm of ethics
  - ❑ Society should act in a structured and comprehensive way to avoid solutions that meet only the mere sum of private interests
  
- ❑ IT governance guidelines: definition of the responsibilities, decision rights and principles that enable transparent processes for the achieving the organizational business objectives
  - ❑ In the case of the smart city organization that is involved in the project of the building the informational structures of the smart city has to apply best practices and models in order to transcend traditional decision-making processes

The power transforming should not be based only on economic power. It should encompass ethical values



# CONCLUSIONS

- ❑ Expansion of technological power: the issue of workplaces losses and potential hazard of some products
- ❑ Concept of the responsibility in the area of ICTs includes: legal, philosophical, and religious contexts
- ❑ New living standards are required changes in ethical view.
  - ❑ Smart city solutions require a new conception of duties, responsibilities, and rights in which these values should consider the future consequences of procedures whose effects could damage society

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