

EVOLUTION OF COMPETENCES FOR NEW ERA OR EDUCATION

4.0

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It is obvious, that world of production and society, connected with it, are changing faster and faster. The trends of this changes are oriented on the 4th industrial revolution, shortly, Industry 4.0. All this changes will definitely have influence also on the whole society. The base principles of Industry 4.0 are four, namely:

- Interoperability: The ability of machines and people to connect and communicate with each other via the Internet of Things (IoT) or the Internet of People (IoP).
- Information transparency: The ability of information systems to create a virtual copy of the physical world.
- Technical assistance: First, the ability of assistance systems to support humans by aggregating and visualizing information comprehensibly for solving urgent problems on short notice. Second, the ability of cyber physical systems to physically support humans by conducting a range of tasks.
- Decentralized decisions: The ability of cyber physical systems to make decisions on their own and to perform their tasks as autonomous as possible. Only in case of exceptions, interferences, or conflicting goals, tasks are delegated to a higher level.

The education needs also drastically changes. Educational system according to 4.0 scenarios must develop:

- Engineering knowledges and skills for Developing cyber-physical systems, the Internet of things (IoT) connected with internet of people (IoP) and cloud computing.
- Digital literacy 4.0 which means the competence to communicate with each other via the Internet of Things (IoT) or/and the Internet of People (IoP).
- Skills for humans for making informed decisions and solving urgent problems on short notice.
- Decentralized decisions – request people to be capable to work especially in cases of exceptions, interferences, or conflicting goals, tasks, which are delegated to a higher level.

In this presentatin we will point out the necessary adaptation of world of education for new era.