

TECHNOLOGY TRENDS, EDUCATION 4.0 AND BEYOND

Prof. Dr. Hafize KESER

Dr. Ali SEMERCI

Abstract

Today, a new industrial era known as Industry 4.0 is underway, where the internet plays a major role in industrial production process. In this revolutionary era physical and virtual dimensions are increasingly intertwined day by day. Advanced technologies such as internet of things, big data and artificial intelligence, augmented reality, mixed reality, virtual reality, radio frequency identification technologies and smart spaces radically changes in many areas of life including education. In order to fully exploit the potential of smart products, services and business opportunities that are expected to be widely used in all sectors in the near future, education systems need to be overhauled to meet the qualified manpower required by this dynamic process. The ability of companies and institutions with strong information and technology infrastructure to reflect advanced digital technologies to innovation and production processes requires some certain skills, described as 21st century skills, such as creativity, innovativeness, productivity, accountability, flexibility, adaptability, critical thinking, problem solving, information, media and technology skills. Education 4.0, a reflection of the era of Industry 4.0, refers to a period in which education paradigms and approaches have changed as well as the use of advanced technologies in education. In this study, firstly the use of technology trends in education is discussed in line with the industrial revolution eras. Then, the recent revolutionary technologies' effects on learning and teaching processes are examined within the framework of changing educational paradigms and teaching approaches in accordance with the Industry 4.0 period.

Keywords: *Education 4.0, Industry 4.0, ICT in education, technology trends*