ARTIFICIAL INTELLIGENCE (AI) DRIVEN DIGITAL EDUCATION AND SKILL TRAINING

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Abstract

Investing in holistic skills development in primary to higher education will be key to addressing the root causes of the global skills gap, preparing the next generation of talent for lifelong learning and ensuring that future efforts in retraining and upskilling pay off for individuals, businesses and governments. Education reform is already underway at global level and we could see more monumental solutions to improve efficiency in the near future. It is very important that new generations receive the best possible quality of education. A growing number of experts, researchers and policy-makers believe that the efficiency of teaching methods and learning can be significantly improved in the coming years by taking advantage of developing technology.

Artificial intelligence (AI) in education is about preparing students to have the competencies and skills necessary for the current and future digital transformation to Industry 4.0. Education 4.0 is a new educational paradigm that seeks to address the needs and opportunities of the fourth industrial revolution. It allows learners to determine their own learning model and pace. Education 4.0 is based on the concept of learning by doing, in which learners are encouraged to learn and discover in an experimental, individual way.

Rapid advances in artificial intelligence (AI) are revolutionizing vocational training and skill development by tackling important issues like personalization, scalability, and accessibility. AI technologies can be incorporated into vocational education, emphasizing how they can improve learning outcomes, close skill gaps, and get workers ready for Industry 4.0. Real-time feedback, individualized training, and hands-on practice in secure settings are made possible by AI-powered technologies including intelligent tutoring systems, virtual reality (VR) simulations, and adaptive learning platforms.

We look at current problem areas in education and, most importantly, how new technologies promise to solve these problems. We will show that the use of Artificial Intelligence is both necessary and useful in the context of education. We emphasise that the hands-on learning provided by the potential of AI allows for a deeper, more confident mastery of the subject matter, which can be easily applied in real life, as opposed to the traditional theoretical approach.

Keywords: Artificial Intelligence, Education 4.0, Education Reform, Skill Development, Vocational Education, Technical Education, Industry 4.0.