

CONCEPT AND APPLICATIONS OF SMART EDUCATION IN THE DEVELOPED COUNTRIES OF THE WORLD

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ABSTRACT

This article is written about the smart education trend. The article analyzes the concept of smart education in the developed countries of the world, provides an overview of scientific works on the levels of development of smart education, the transition to a smart society. Also, the thoughts of scientists about smart people are given.

KEYWORDS: *Smart, Smart Cities, Smart Education, Smart People, Smart Technology.*

INTRODUCTION

Smart education has received a lot of attention in the 21st century. Educational projects focused on intellectual education have been carried out around the world in recent years:

- In 1997, Malaysia first implemented a smart education project, the Malaysian Smart School Implementation Plan. Government-backed smart schools strive to improve the education system in order to achieve the National Philosophy of Education and prepare a workforce that meets the challenges of the 21st century.
- Singapore has been implementing the Smart Nation Master Plan since 2006, in which technology-assisted education is an important part. According to the plan, eight schools of the future are being created, which are focused on creating a diverse learning environment [1].
- Australia partnered with IBM to develop a smart, student-centered, multidisciplinary education system. Their system links schools, universities and training.
- In South Korea, there is an educational project SMART, the main tasks of which are to reform the educational system and improve the educational infrastructure.
- New York's Smart School program emphasizes the role of technology integrated into the classroom. They focus on improving student achievement and preparing them to participate in the 21st century economy.
- Finland also implemented an Intelligent Education project in 2011, which is the current system solutions for learning (SysTech). The project aims to advance 21st century learning through user-centered and motivational learning solutions.

- In 2012, the UAE began investing in a smart learning program that aims to create a new learning environment and culture in their national schools through the launch of smart classrooms. [2]

Smart lifestyles are characterized by a variety of cultural sites available to all religions, whether they belong to major or minor communities. The conditions for education must be provided through the creation of world-class colleges and universities. There should also be tourist attractions here, as well as world-class hospitals with all the latest technology and equipment to ensure that every resident can lead a healthy life. Good quality housing as well as social cohesion must be ensured for the townspeople. Also, in order to live in a smart system, a new species, changed people of society are required. They are called smart people.

Smart people. The Human Development Index is considered the most important aspect. The next most important indicator is the attendance of graduates. The third most important attribute is skill level. Smart people must have a passion for lifelong learning and there must be social and ethnic diversity [3]. Openness is another quality of smart people, as well as flexibility to adapt to changes in the environment, as well as creativity, which fosters education. Smart people have a democratic character and participate in public life [3].

Scientists have developed a criterion that defines smart people [1]:

Smartness levels (i.e. Ability to...)	Details
Adapt	Ability to modify physical or behavioral characteristics to fit the environment or better survive in it.
Sense	Ability to identify, recognize, understand and/or become aware of phenomenon, event, object, impact, etc.
Infer	Ability to make logical conclusion(s) on the basis of raw data, processed information, observations, evidence, assumptions, rules and logic reasoning.
Learn	Ability to acquire new or modify existing knowledge, experience, behavior to improve performance, effectiveness, skills, etc.
Anticipate	Ability of thinking or reasoning to predict what is going to happen or what to do next.
Self-organize	Ability of a system to change its internal structure (components), self-regenerate and self-sustain in purposeful (non-random) manner under appropriate conditions but without an external agent/entity.

MATERIALS AND METHODS

Today there is no definite definition of smart learning yet. Multidisciplinary researchers and educational professionals are constantly discussing the concept of intelligent learning. However, several important components have been discussed in the literature. Hwang (2014) and Scott and Benlamri (2010) argue that intellectual learning is context-aware learning everywhere. Gwak (2010) proposed the concept of intelligent learning as follows: first, it is learner-centered and content-centered rather than device-centered; secondly, it is effective, intelligent, personalized

training based on advanced IT infrastructure. Technology plays an important role in supporting intelligent learning, but the focus should be on more than just using smart devices. Kim et al. (2013) argue that smart learning, which combines the benefits of social learning and ubiquitous learning, is a learner-centered and service-centered educational paradigm, not just device-centered. Middleton (2015) also describes student-centered aspects of smart learning and the benefits of using smart technology. Personal and intelligent technologies force learners to participate in learning and increase their independence in more open, connected and expanded ways at the expense of richer personal contexts. [4-7]

Also others are trying to point out the features of smart tilt. MEST (2011) presented the features of intelligent learning, which is defined as self-directed, motivated, adaptive, resource-rich and embedded in technology. Lee et al. (2014) have proposed that smart learning functions include formal and non-formal learning, social and collaborative learning, personalized and situational learning, and application and content orientation. [8]

RESULTS AND DISCUSSION

Around the world, many countries have participated in projects aimed at intellectual education. Malaysian Smart Schools are committed to helping their country build a 21st century workforce by leveraging and implementing cutting edge technology in schools. And smart schools are not only focused on stimulating thinking, creativity and caring for students, but also taking into account the individual differences and learning styles of their students. Intellectual education in Singapore also highlights the role of technology. Their goal is to foster the use of learning experiences to meet the diverse needs of learners through the innovative use of information and communication technologies (Subcommittee on Education and Training, 2007). To realize this, Singapore has created an enriching and personalized student-centered environment as well as a nationwide education and learning system for educational institutions and lifelong learning. Korea has implemented a mind education project to provide students with personalized and adaptive learning to develop the ability to learn independently and enjoy the use of various resources and technologies. Personalized learning and creativity-centered education are considered to be the main keywords in intellectual education. Australia is committed to building a smart, learner-centered multidisciplinary education system using the following strategies: adaptive curriculum and learning portfolios for learners, collaborative digital learning technologies and resources for teachers and learners, computerized administration, monitoring and reporting, and online learning. Resources. New York has proposed the following keys to achieving a smart school: reaching and expanding online learning, harnessing transformative technology, connecting every school with a high-speed network, expanding communication between the classroom and beyond, providing high-quality continuous professional development, and focusing on Developing 21st Century Skills (New York City Smart Schools Commission Report 2014). Finnish intelligence education aims to use user-centered and motivational learning solutions to advance learning in the 21st century (Kankaanranta and Mäkelä, 2014). They proposed a pedagogical network of educational institutions called the "value network", which is the centerpiece of the program. It consists of the following five categories: for understanding user experience and usability, for obtaining expert feedback, for determining learning outcomes, learning effects and quality, for developing skills and experience. The United Arab Emirates (UAE) is committed to making its education system student-centered through the use of cutting-edge science and technology. They encourage students to develop creativity, analytical thinking,

and innovation. Their approach includes teaching both in and outside the classroom. Students can monitor and actively participate in their own learning experience in an interactive, engaging and rewarding learning environmentsphere. [9-14]

The aim of intellectual education is to foster the development of a workforce that acquires the knowledge and skills of the 21st century to meet the needs and challenges of society. Intelligent technologies play an important role in creating an intelligent educational environment. In an intelligent educational environment, learning can take place anytime, anywhere. It covers a variety of learning styles such as formal and non-formal learning, personal and social learning, and aims to ensure the continuity of learning for the learner. In doing so, learners are provided with personalized learning services as well as adaptive content in accordance with their (learning) context and their personal abilities and needs. So, in general, "smart" in smart education means smart, personalized and adaptive. But for different education and / or educational situations, the meaning of "smart" has different definitions.

CONCLUSION

The smart educational concept combines:

- virtual space;
- mind, intelligence and multitasking of both systems and humans;
- application of IT technologies intelligently and efficiently;
- AI;
- Methods for smart learning;
- Smart teaching
- Smart upbringing;
- Smart competencies.

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