TECHNOLOGY OF DEVELOPMENT OF PROFESSIONAL AND TECHNICAL COMPONENT OF FUTURE ENGINEERS BY MEANS OF VIRTUAL EDUCATION TECHNOLOGY

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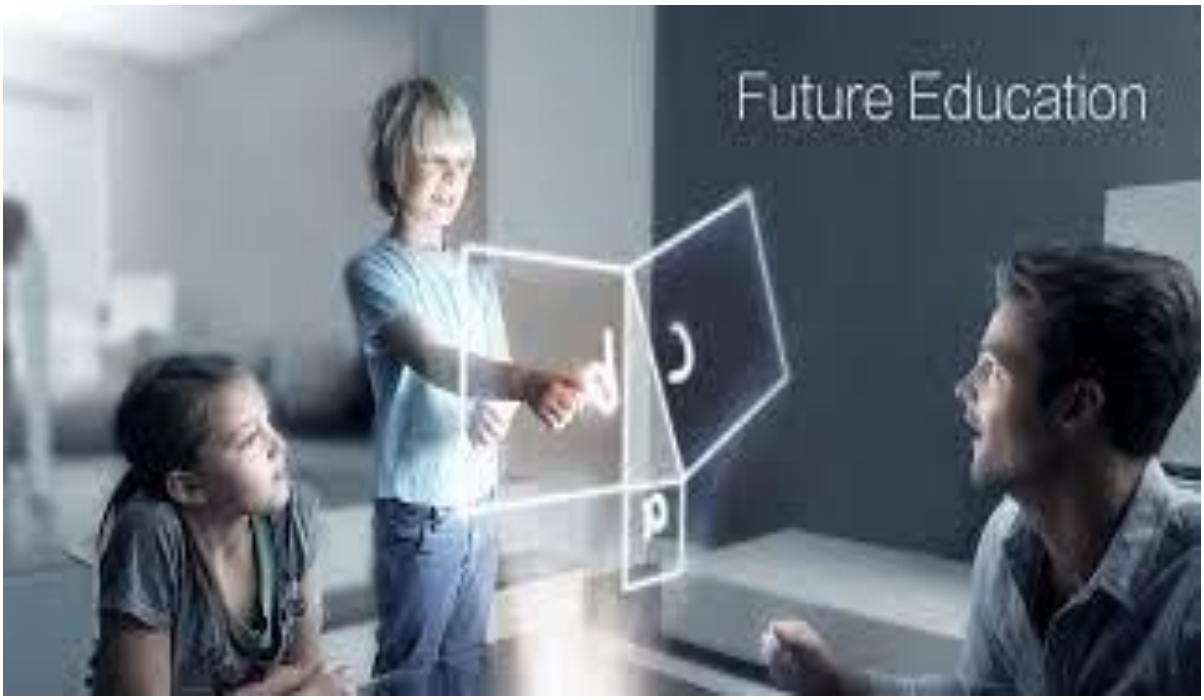
Abstract. *It is intended to establish a virtual education system and to implement advanced technologies and to reflect an environment close to the real environment through the process of simulation, and to create a healthy competitive environment among students and youth.*

Keywords: *virtual world, technology, image display, cyber-education, 3D view.*

Virtual education - higher in education education, teaching and research such as innovative in applications see output for enough level development level achieved. Virtual education our time Demand level rose. As a result different different games, education in terms of work developed scientific applications electron to textbooks than amenities creates Both technique and work release students in learning on the computer work developed , details and gear up virtual , more precisely in other words , any body in 3 dimensions reflection carry on and his work principle and elements obvious in the image harvest do, student young people interest only increase not only , but digital to technologies was their aspirations increases. However virtual education new to technologies and 3D views reflection bringing give will receive to devices well economic expense Demand is enough However , the last in years computer technique and software technology future study strategies add swellminoti work exit virtual education more convenient did of expenses difficulties although virtual education done increase education benefits attractive be remains. This article virtual education principle explains and this education through at the university work developed interactive education environment describes. Also he engineering according to bachelors and graduate students for study and study for the most modern 3D photorealistic interactive and immersive virtual from the environment of use advantages creates This process through engineers opportunities on the side increases, and 3 D look have was of projects more to improve possibility creates. This allows you to avoid many possible origins. Games based on digital technologies allow students to try different answers. This creates an opportunity to think freely. Able to perform various roles and measure results without fear of negative consequences.

Virtuality-based programs can help increase empathy, self-awareness, emotional regulation, and sociability. In addition, it forms the use of information sources on a large scale, and creates an opportunity to study the best projects in this direction, and creates an opportunity to exchange experience with creators who have worked and are working in this direction in the fields of engineering and technology. In some ways, artificial intelligence-based technologies are being created that provide online recommendations and skills. We are moving into a virtual evolution phase. Games such as Ripple Effects and The Social Express use virtual, assessment environments, stories, and interactive experiences to provide opportunities for students to develop and practice social skills competencies. Other apps help bridge the gap between virtual

environments and real-world emotions that can be regulated by providing timely assistance. Virtuality reflects the process itself. A number of applications are available to help students identify and articulate their emotions, and to receive targeted suggestions or strategies for emotion and self-regulation through virtualization. is creating the ground to do. Examples: Breathing, Thinking, Smiling. Mind; Stop, breathe and think; Touching and learning are feelings; Digital Problem Solver A key part of Non-Cognitive Development is developing a growth mindset towards learning. A growth mindset is the understanding that skills can be developed through action and practice, leading to increased motivation and success.



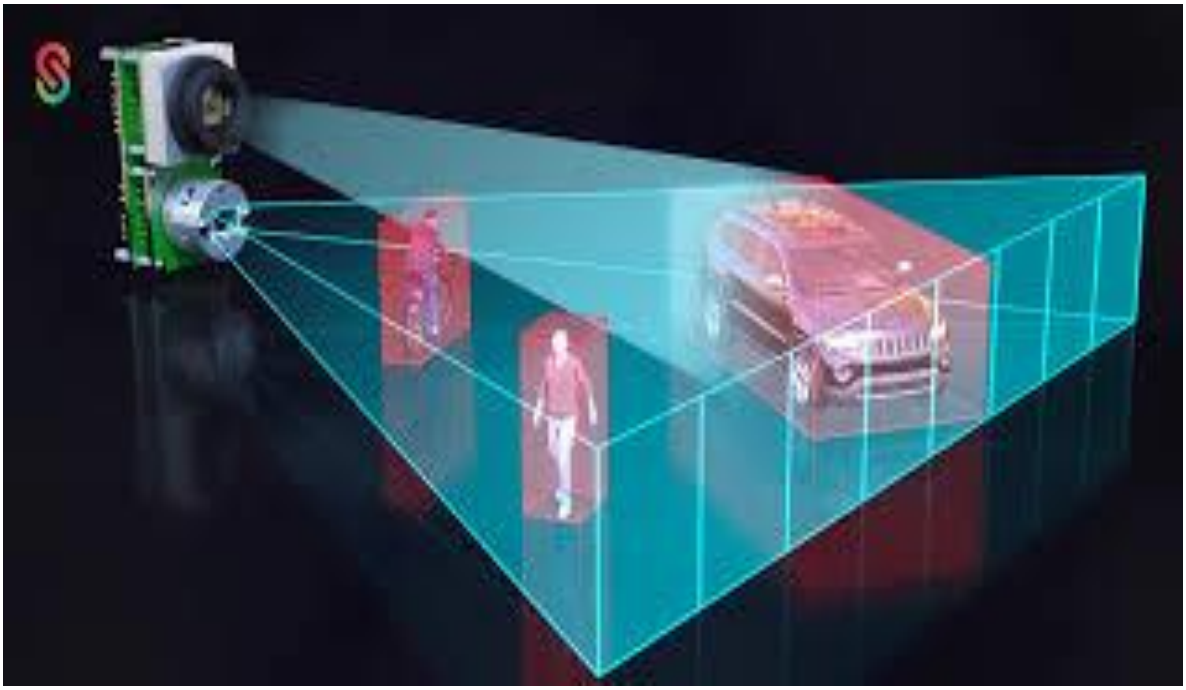
Even as educational researchers, learning scientists, and teachers go on, people learn. During the use of models, it is possible to update them to eliminate defects. On the contrary, the production of textbooks and training manuals is reducing its effectiveness nowadays due to high costs and rapid obsolescence. Any device created is designed for a certain purpose, but how to use it, fix it, causes some difficulties. On the contrary, you can learn to get information about them from the system. It is possible to perform a simple driving process in a 3D training building, try many times compared to reality and not worry about negative consequences, and have many attempts. Here are five ways that technology can enhance and improve learning even in formal education. Each of these are examples of transformative learning in action, where technology can enable personalized learning or more engaging experiences, and with appropriate learning goals in mind, teachers can enable students in the classroom to choose from a menu of learning experiences—writing Learning experiences can develop essays, media production, website creation, and collaboration with experts around the world. Research and development at the intersection of educational sciences and learning can lead to innovative products where technology effectively improves student learning. When applied to mathematics, the idea is to provide students with the ability to determine the results of multiple math problems of the same type, simply by teaching students the rules and procedures for solving math problems. Educational technology developers can become integrated through the study of educational sciences. It can create potentially promising, innovative ways and contexts to teach new

concepts. Focusing students' attention on relevant information, motivation, engagement, and all is consistent with how people think and learn.

Key Principle: Technology should be used to enhance learning.

Guiding principle: A partnership between parents, teachers and youth is established to strengthen the relationship between technology help young people to learn early, that is, they offer the opportunity to study a wider range of topics beyond the ones already studied. Recognizing the growth in the use of technology in early learning settings, the US Department of Education and the US Department of Health and Human Services launched the Early Learning Initiative to promote the developmentally appropriate use of technology in homes and early learning settings. collaborated in the development of the Education and Educational Technology Policy Brief. Technology helps organize learning around real-world problems, and project-based learning - digital learning uses a wide variety of devices and resources to demonstrate proficiency with complex concepts and analyze content. Below are examples of projects funded by NSF as part of this effort:

Students in grades K-12 across the United States visit remote locations. They visit Machu Picchu, the Great Wall of China, and elsewhere they do it without ever leaving the classroom. Educators can access programs like the Google Expedition Pioneer Program. This, in turn, creates the basis for the expansion of the imagination of young students. Classes and additional online resources may be required to create a virtual travel experience. Students can then visually walk around in VR glasses on Google Cardboard. Learning through technology does not need to go outside the classroom. Learning opportunities available in museums, libraries, and other off-campus settings. Hive reimagines interest-based learning and empowers learners through collaboration with peers, youth, technology professionals and entrepreneurs. Like Cities of LRNG, Hive networks are made up of community organizations, including libraries; museums; schools; after school programs; and individuals, such as teachers, designers, and artists, work together to create a collective.



The Hive model supports three levels of connectivity:

Educational networks;

With operational budget and staff;

Hive Learning Networks is committed to advancing innovative, open source learning models and cooperation with civil and cultural organizations of the society, enterprises, entrepreneurs, teachers and students. Through the IES-awarded Virtual Learning Labs Research and Development Center in 2016, University of Florida researchers are exploring educational technology systems. It can use large amounts of data to effectively tailor learning for students. The Center provides a platform for students and teachers to use past student data to personalize Algebra Nation, a free online learning platform.

The goals of this activity include developing mastery of basic algebra;

Development of indicators of participation in the educational process;

Design professional development helping educators use learning analytics to differentiate instruction;

Engage in leadership to carry out outreach work on the design of personalization of virtual educational systems use of instructional analysis and accompanying professional development for teachers;

Greater use of games and simulations to give students hands-on experience Students actively participate in the project together without leaving the classroom.

For example, RoomQuake, in which the entire classroom becomes a miniature earthquake simulation. Speakers play sounds When an earthquake occurs, students can take readings on simulated seismographs in various locations around the room, examine the resulting fault line, and stretch a string to locate the epicenter.

Another example is Robot-Assisted Language Learning in Education (RALL-E), in which students learning Mandarin converse with a robot that displays a series of facial expressions and gestures, combined with a language dialogue program, such robots teach students new enables the formation of skills. Learning a language in this way helps the student express his thoughts freely.

RALL-E also promotes cultural awareness while encouraging appropriate use of language skills and building student confidence through practice. New ways of connecting

physical and virtual interaction with educational technologies are a bridge between the tangible and the abstract. For example, in the "Molecules in Contact" project, students manipulate a physical ball-and-stick model of a molecule such as hemoglobin. Students' concrete connection to the physical model is associated with more abstract, conceptual models and supports students' growth in understanding. To achieve a similar goal, elementary school students draw math pictures.

The ability to handle situations with the help of visual aids and hand drawing on the surface of the tablet with the help of a pen on the surface of the tablet creates a lot of imagination. Unlike paper, they can easily copy, group, and modify their pictures and images to help them express their ideas.

Contextualizing, Inferring, Monitoring, and Validating (SCIM-C) was developed for historical research education. A unified hardware and software platform is being created to support SCIM-C pedagogy. Forming a site for mobile devices with AR to increase students' "field" experience in local historical events. In addition to experiencing the site as it is, AR technology makes it possible. Students view and experience the site from several social perspectives and its structure and use can be seen in several time periods. Focus on research Analyzing changes over time about the potential of AR technology in inquiry-based fieldwork in the sciences is important for developing understanding that very small changes over long periods of time can add up. Throughout these examples, we see that learning is within or outside of screens. Modern public buildings include features such as ramps, automatic doors, or In the same way, text-to-speech, speech-to-text, increased font sizes, color contrast, dictionaries and glossaries should be present. To make education accessible to all, it is necessary to have educational hardware and software. Three key principles for applying Universal Design for Learning (UDL):

1. Provide multiple tools for students to access information

in several ways. For example, digital books, custom software and websites,

and screen readers that include features such as text-to-speech, variable color contrast,

adjustable text size, different reading levels, or selection of student-written materials;

2. In providing multiple means of expression for all students to demonstrate and represents what they know.

Examples include providing options for how to express yourself study may include options such as writing, online concept, as appropriate, mapping, speech-to-text or translation programs. Digital learning tools are promising to support more flexibility and learning than traditional ones. With the use of mobile devices, laptops and networked systems, teachers will have better capabilities. They can also expand communication with mentors, peers, and colleagues through social media. Digital tools also allow you to enhance or change content , such as reducing the complexity of text or changing the speed of presentation.

A high level of engagement can include digital tools such as games, websites, and digital books. Designed to meet the needs of a range of learners from beginners to experts.

In conclusion, it can be said that the development of 3D technologies allows to see possible options, even possibilities, in advance and how to work in this process. Simply through simulation, an artificial environment close to reality is created for students to imagine the cracks formed in the building as a result of an earthquake during the lesson and how to act in this process. In this, technologies should be replaced. At the same time, all feedback and elimination

of existing errors, in the development of measures, allows students to correctly approach the shortcomings of feedback and to investigate how they behave in this process.

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