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AUGUMENTED REALITY AND VIRTUAL REALITY IN EDUCATION

Student: Vimala Devi. B

Email: vimaladevib22bcs162@skasc.ac.in

Department of computer science, Sri Krishna Arts and Science College, Coimbatore

ABSTRACT

Virtual reality is defined as the person who using the VR feels the imaginary world created by computer technology as a real world. VR games mostly used all over the world. Augmented reality person sees the real world by adding some extra virtual graphics, sound, images that are created by computer technology, social media filters. The AR application development in educational setting in the past twenty-five year passed and the tool I three-dimensional anatomy. In the year (1995 – 2009) 80 AR studies in education published that are reported by web of science (WOS). Educational institutions trying to develop VR in few years, to teach with virtual environment by visualize in physical classroom. Virtual laboratories, medical scenarios holographic optical elements (HOEs) and lithography-enabled devices are introduced in AR and VR. And some basic structure of AR and VR headsets. In current years, several researchers have concerned with implementing AR and VR technologies in the(lit) plan management domain, where these technologies have displayed a major contribution to the development of the interpretation plan management aspects in countless areas. The use of immersive netnography is crucial for conducting thorough service experience studies regarding AR, VR and metaverse from a phenomenological perspective

KEYWORDS

Augmented reality, virtual reality, education, holographic optical element, lithography enabled devices, headsets, virtual environment, construction project management immersive netnography, covid-19 on virtual guitar

INTRODUCTION

Virtual reality was proposed by Jaron Lanier in 1980s and augmented reality was coined by Thomas Caudel and David Mizell in 1990. AR and VR are adopted in all domains, including education. In future AR and VR plays a major and important role in our day-to-day life. In next few years Apple, Samsung, Microsoft and other big companies invest more money to introduced or to developed AR and VR technologies. AR and VR make an explosive growth to become the next big computing platforms in the world. By using AR and VR, the most benefited sector is educational sector by develop virtual environment to improve the teaching methods by visualized. By the development of three-

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dimensional(3D) visual experience, AR and VR headsets emerging a next generation interactive display. Challenges that are faced by AR and VR are eye box, human vision, field of view (FOV), depth cue, dynamic range etc., To make a compact headset by using lightweight glasses but to design the high-performance AR and VR glasses and headsets is very challenging to make. Part of the technological tools utilized by the interpretation industry is titled virtual fact (VR), wherein a three-dimensional, computer-generated environment could be explored and interacted over an individual. Augmented fact (AR) stocks similar conception, but in place of interacting in a nonexisting surrounding (digital fact), AR makes use of the existing environment concurrently as implementing virtual elements to emerge as though both are together concurrently (Dunleavy and Dede 2014).

REALITY-VIRTUALITY(RV) CONTINUUM

Real environment (augmented reality) and virtual environment (augmented virtuality) both are combined to form the reality-virtuality (RV) continuum.

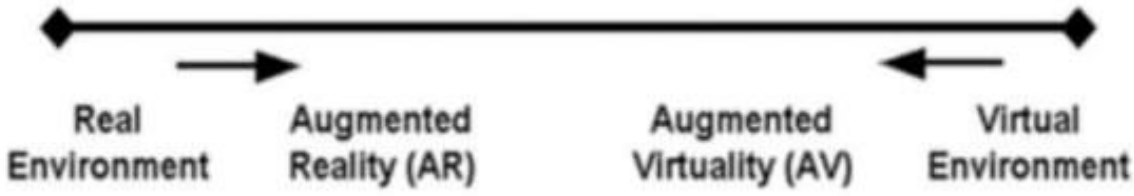

Fig.1_ reality-virtuality (RV) continuum.

Fig.2_Popular models of head mounted displays for VR and AR

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VIRTUAL TECHNOLOGY IN EDUCATION

To make the students engaged and motivated in studies virtual reality technology is helpful. And it helpful to understand the effective topics in easier way. Because of VR/AR with virtual environments, virtual technology encourages the students to be an active learners and decision-taking interact with virtual environment. By 3D models of studying, they enhance their learning experience. By investigate, experiments and resulting an experience it improves students learning. By using headsets, tactile gloves and motion sensors, students experience the topic with realistic objects.

AUGUMENTED REALITY IN EDUCATION

The affordances of the 3GARE suggest a promising future for educational AR application. Emerging AR technologies like smart glasses and online AR, along with AI, may be able to address some of the remaining challenges with AR in education.

HOLOGRAPHIC OPTICAL ELEMENT AND LITHOGRAPHY-ENABLED DEVICE

Holographic optical element is nothing but properties of a wavefront is transformed by the use of hologram. By the principle of diffraction, holographic images are produces. Augmented reality is a type of virtual reality that uses digital images to overlay what the user sees in the real world. This technology can be used by companies such as Google with their Google Class or in research universities that look to utilize HOEs to create 3D imaging without the use of eyewear or headwear. Lithography-enabled devices provide creative solutions for overcoming challenges with AR and VR that are otherwise difficult with conventional optics.

APPLICATION AREAS OF AR AND VR IN CPM

Applications areas of AR & VR in CPM. Safety management, communication, and data requisition, visualization, construction, management, scheduling and project progress, tracking defect and quality management, facility management are the application areas of VR & AR CPM. By this application we can controlled the serious accidents and high deaths in construction industry effectively we can share the data & information in construction industry, visualization, design review, visualization of stimulated construction operation these are some tool that used in CPM effective teaching for students. AR & VR technology create a schedule and track the processing project in CPM

IMMERSIVE NETNOGRAPHY

A set of data collection, analysis, ethical and representational research practices, immersive netnography is adapted to digital media phenomena (customers and employees) that include immersive technology experiences. This allows for a better understanding of how these technologies are experienced

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by those who use them, as well as providing insights into how these technologies can be improved. Netnography has been among the least-researched online qualitative methods.

COVID-19 ON VIRTUAL GUITAR

An immersive netnographic study investigated activities in online guitar communities and analysed these using the protocols of Inductive Thematic Analysis. This yielded seven codes, which showed the negative impact of COVID-19 on virtual guitar communities. Without a doubt, the pandemic has had a serious effect on individual musicians' and live venues' income streams.

CONCLUSION

The reliability of AR and VR as new computers platforms will be enough. According to industry giants, such as Facebook, Google, Microsoft and Apple, VR and AR have great potential and will continue to grow in popularity. This means that the future looks bright for these technologies, which is good news for everyone involved. The way we interact with the digital world is expected to be completely transformed by VR and AR. Using 3D scanning technologies, the 3-dimensional data of a heritage site was collected. The practical applications of VR/AR in an educational setting are hindered by the limits of technology, not the capabilities of the technology itself. Virtual learning experiences shouldn't be just about acquiring knowledge. So, it is required to design these learning environments from a constructivist approach to obtain full learning benefits.AR and VR can be interested with IOT(Internet of things),AI(artificial intelligence),Machine learning and 5G to make it in way that people will frequently use these technologies as they are now using their smart phones and laptops. Prior to the covid epidemic, the music industry was already experiencing unsafe as musicians experimented with new modes of dissemination and monetization after developments in telecommunications. The arrival of the web sparked differing cultural concerns, comprising dispersion, dissipation, preservation, advancement, homogenization and heterogeneity. But sometimes, in the 21st 100 years, virtual spaces additionally include community domains.

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