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DEVELOPMENT OF EDUCATIONAL TRAINING MODEL FOR BUILDING TOMORROW'S OPPORTUNITY GENERATORS – A NEW VIRTUAL REALITY GLOBAL MODEL

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Abstract

Education and entrepreneurship is the backbone of economy of any country. Education with entrepreneurship training is a need of an hour because the early understanding of economic views can lead to a successful product. Looking at a global scenario, students worldwide are mostly focusing on better job opportunities. However, job creation is knows as entrepreneurship. The educational bodies require an end-to-end strategy for execution of entrepreneurship development model which can come up with a gross efficient product. Hence, this paper presents a new virtual reality model for execution of strategy at peer level itself. Also, research suggests that, students and teachers can participate to develop the global scenario for exchange of knowledge and execution of strategies by means of virtual realities.

Keywords: Entrepreneurship, education, global teaching, virtual reality

1. INTRODUCTION

In the past two decades, there has been a call for educators around the whole to prepare students for the 21st century to help them navigate an increasingly globalized world and interconnected landscape. This creates a need for educators to equip students with a holistic education that emphasizes life skills like communication, cross-cultural collaboration, and critical thinking [1]. Virtual reality (VR) technology has developed rapidly in recent years and has been applied in many fields, including medical education. Students in the VR group performed better than those in the traditional education group. Teaching with VR may enhance student learning in medical education. Medical schools should consider making greater use of VR when educating students [2]. As a new move in the field of the modern education, the impact of a compulsory credit-bearing experiential learning (EL) block embedded into an initial teacher education (ITE) programme in Hong Kong. Student teachers engage in extended participation with community-based projects, aimed at enhancing their understanding of real-world environments, expanding their capacity to integrate theory and practice, and broadening their global outlook [3]. Research suggests benefits of synchronous online "virtual classrooms" to, for example, reduce the perception of "distance" via increased social presence and to facilitate student engagement, but this delivery format represents a departure from the asynchronous delivery of most online courses to date. In response to the need to move suddenly online, reliable video-conferencing software that had been unavailable in the past was made available to both faculty and students [4].

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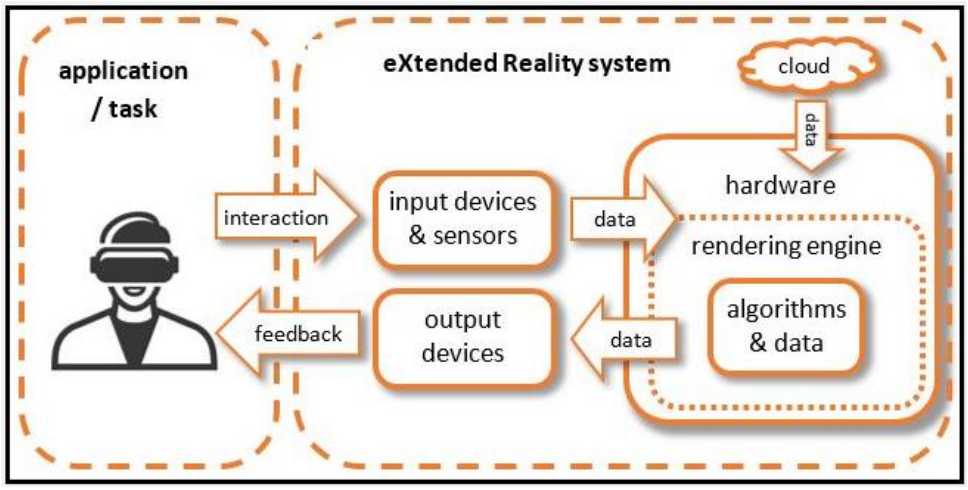
Fig.1: Virtual Reality Framework (Source: XRFORALL)



The growing shift toward online learning has brought new expectations for teachers, including skills needed to combine content knowledge with engaging pedagogical strategies that leverage the affordances of technology. As a result, online pedagogy has become increasingly relevant in modern-day schools. The challenge is to understand the nature of online pedagogy, the skills needed for teachers to succeed in online settings, and the theoretical underpinnings surrounding why these skills are essential [5].

The results revealed that faculty members believe in and trust the capabilities of all their students. They meticulously plan their syllabus to ensure practical learning, using a diverse range of strategies and providing continuous feedback. They also adopt a student-centered teaching approach and attach value to emotional and affective aspects, as an effective strategy for learning. The study helped identify a series of practices regarding the components and methods required for constructing inclusive university communities [6, 7].

Active learning pedagogies and high-impact practices which have been shown to increase learning, close equity gaps, and support well-being tend to center human interactions, providing students with individuals and groups to challenge and support them. Faculties do not need to build one-on-one relationships with every student to create powerful learning experiences; instead, well-designed courses and pedagogies make educationally purposeful interactions a core component of teaching and learning [8].

The paper organized in four sections, Section 2 provides the empirical literature in the field of virtual reality, Section 3 briefs about the core pedagogy implementation layers of virtual reality and Section 4 concludes the paper.

2. LITERATURE REVIEW

Virtual reality constructions of antiquity offer an ever-expanding range of playful encounters with antiquity. Such experiences may be framed as educational, for instance those deployed in museums, or entertaining, as is the case with video games. But increasingly, the experience of

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a virtual world is framed as both. The line between entertainment and education is becoming progressively more blurred thanks to the deployment of pedagogical opportunities in video games, AR features on history trails, and app-based games in museums [9]. As architectural pedagogy slowly transitions to embed VRAD to its existing curriculum, educators often face the lack of a structured approach. This paper draws reflections from the current project, V-ROOM (Virtual Classroom) to build a baseline of how to embed the use of VR particularly in architectural education [10].

The term virtual reality came up in the United States by Jaron Lanier in 1980. This term virtual reality refers to a virtual representation of reality. It is an artificially generated representation of a 3D environment and reality that may then be dealt with in a relatively natural way by human wearing particular computer components such as a headset with a display within and gloves with sensors. This means that something can be evident in life and practically be programmed to happen, but only digitally. Virtual reality is described as actual participation in a simulated universe, a common but limited concept [11]. Virtual reality (VR) has recently become a popular technology in different contexts such as entertainment, military, and education. VR combines technologies to provide an immersive presence through highly interactive objects in a virtual environment but stimulates users' sensory awareness to perceive being in an almost natural environment. The use of VR in education to support training, teaching, and learning through 3D simulation and visualization of learning content in a virtual presence has grown recently. This increasing VR application growth in the educational field is evident, as revealed by the literature, including a recent VR study in computer science education. VR technology provides an opportunity to develop a state-of-the-art smart learning environment with a high level of interaction, engagement, and motivation for an enhanced learning experience [12].

In recent years, educational researchers and practitioners have started to expect that emerging technologies such as Augmented Reality (AR) and Virtual Reality (VR) can bring new opportunities in educational settings. Unlike expensive and high-end devices in the past, recent devices for AR and VR have become affordable with rapid technological advancement, which gives teachers easy access to VR/AR learning activities [13]. Modern-day tertiary education is shifting from traditional methods of teaching in lectures and tutorials to more self-directed, visual methods of learning. Furthermore, advances in technology have provided educators with tools to enhance their ability to deliver content in an ever-progressing environment. Incorporating technology into health science and medical education is essential for knowledge acquisition in these disciplines where learning is predominantly experimental, active and self-directed. By using modern visualization tools, it is possible to combine three-dimensional (3D) models of relevant human structures with other information sources, such as text and audio. It also gives rise to interactive tools capable of meeting the demands foster increased knowledge in health sciences and medicine curricula that students currently face [14]. A first example for employing the circuit parcours technique is an undergraduate course "'Virtual and Augmented Reality"' for computer science students in their 4th semester. The course has 15 participants and a workload of 150 hours. The course is taught in a VR/AR lab. There are four hours per week that consist of lecture based instruction, student presentations, practical work and

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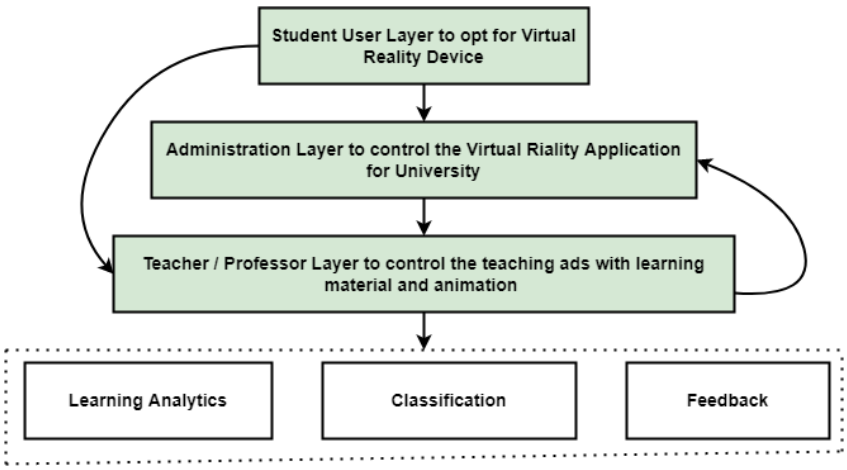
tutoring. The proportion of these varies over time with an emphasis on instruction at the beginning of the course and a focus on students' practical work at the end. Overall, the ratio of instruction and practical work is roughly 40:60. Moreover, students have daily access to the VR lab where each student has access to a locker where their VR/AR equipment is stored [15].

3. RESEARCH METHODOLOGY

Despite the increasing movement towards evidence-informed VR-supported instruction, very few systematic efforts can be identified to date where applied learning analytics (LA) practices are discussed. In addition, no concrete solution exists to analyse and present the potential benefits of using VR in different STEM subjects. This inadequacy of the literature motivated this initial attempt to describe and propose a theoretical design framework that could assist educators, scholars, researchers, and policymakers to gather large data sets in order to analyse the potential of VR applications in combination with LA models [16]. Virtual reality applications turn abstract concepts into experience able phenomena and present exciting opportunities to transform science education and public outreach practices. While research has started to look into the affordances of virtual reality (VR) in the formal science education context, the potential of these technologies to enhance public engagement with science is largely unexplored. To improve the way that VR may be used in informal learning and public outreach contexts, the purpose of our study was to undertake evidence-based investigations that shed light onto the relationship between VR and public engagement [17].

Fig. 2: VR Model Conceptual Framework for VR-Education



As shown in Fig. 2 above, the learning analytics can be achieved with feedback system to enhance the teaching skills and to know the understanding of students. In situations like pandemic, this can be a great opportunity for students to learn from anywhere. The global education and entrepreneurship can be bloomed with virtual reality implementations in Indian Universities and/or for any Universities around the globe. Students need to opt for the device which can be used to view the contents provided by teachers/professors and administrator level

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can provide the information technology support for the same. This methodology can be a baseline investment to reach the global education.

4. CONCLUSION

As discussed in this paper, the next generation education can be a fruitful with more practical education for next generation. The traditional education and syllabus was designed focusing next 30 years which can be modified and/or upgrade by means of virtual reality execution at the peer level. In the pandemic scenario, the virtual/augmentation reality can be a great solution where geographical location constrains can be omitted.

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