

Uses Of Virtual Reality Under Multimodality

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Virtual Reality, Multimodality, and Technological Learning

Over a century, the world has witnessed tremendous technological changes and developments. In the contemporary world, most people have become dependent on technological advancements that have developed over time. This has changed the ways of communication, travelling, product purchase, and education, among others. Technological developments have led to the development of various platforms and applications that have eased human life and survival. One of the notable changes as a result of technological advancement is multimodality. While some individuals argue such changes have adverse effects, it is clear that there are a lot of advantages associated with innovations. This essay will contend with the importance of multimodality, especially virtual reality, as a technological innovation.

Technological advancements in virtual reality have provided a variety of chances and opportunities for professionalism and learning. Virtual reality simultaneously helps learners develop practical skills that are hand in hand with acquiring knowledge. We need to discuss the advantages of virtual reality that help trainees and learners differentiate it from traditional training, as highlighted below.

One of the major and renowned uses of virtual reality under multimodality is as a training tool. Technology is more conspicuous in the surgery field. Most medical schools have adopted virtual reality as a means of offering training to the surgeons and doctors who are learning. This is due to the variety of advantages it offers (Botella, Légeron & Optale, 2013).

Risk-Free Simulation and the Training of Practical Skills

One of the advantages of virtual reality technology is facilitating free training. A major issue encountered in practical learning is the significant risk experienced through initiating trainees and learners to new and unmonitored surroundings, such as a surgical setting in the medical industry or machinery in a firm and maintenance training. The use of virtual reality is crucial in such instances as it helps in the neutralization of such risks while still maintaining and upholding the training concepts through the virtual establishment of a similar environment and placing the learners inside without the need to worry about the risks (Hill, 2016).

Virtual reality simulations also provide realistic scenarios. This is due to the fact that the simulations

are created and established on the basis of real-life activities and functions. An example of a real-life application of virtual reality is the Ve-Top used in medical studies. The company has established partnerships with major universities and learning institutions, such as Savonia University of Applied Sciences, to create virtual reality simulations that are characterized by high precision in the areas and situations that are encountered by nurses, doctors and medical practitioners in medical facilities.

Virtual reality is also significant in the sense that it facilitates learning in remote areas. With the technological advancements in virtual reality simulations, learning and training are no longer in need of a tutor in place physically to provide the learners with guides and instructions on the subject they are learning. Various platforms, such as the Ve-Top platform, can be used where content can be uploaded, gathering all the simulations and giving the user accessibility to the necessary content. Such platforms also enable professionals, tutors and teachers to keep track of the learners' performance and progress through a dashboard which contains the data analysis as well as data visualization methods (Botella, Légeron & Optale, 2013).

Immersion, Memory, and Improved Learning Retention

Virtual reality plays a significant role in the enhancement of students' recall and retention capacities. The main objective of any form of training, which distinguishes it from theoretical studies, is to establish and improve muscle memory. Most scholars and researchers have contended that observing a skill cannot merely be sufficient and resourceful enough to attain the required skills, particularly when offering training about engaging fields such as maintenance, medical skills, or high precision controls and manipulations. These activities are achievable through the use of controllers or by applying virtual reality gloves (Craig, 2013).

Virtual reality is also necessary as it simplifies complex and sophisticated situations and problems. Developers built virtual reality simulations in a manner that offers simplified content of the most complicated problems and notions, which are incomprehensive while one is under traditional training (Craig, 2013). This assists the trainees and students in discovering and exploring the minute details in a system that ought to be learnt without any constraints likely to occur in real studies and training.

As discussed earlier, virtual reality can be used in remote areas. This, therefore, facilitates learning, research conduction and training in a variety of learning styles. The trainees, when using virtual reality in training, have the advantage and liberty of experimenting and carrying out tests on anything they desire in the simulation. This facilitates an in-depth understanding of the concepts according to their own learning technique or style in use. Consequently, virtual reality platforms offer recommendation systems according to machine learning. This suggests the necessary or helpful information and data on the basis of the consumer's information as well as the results recorded during the previous simulations.

Cost Efficiency and Organizational Benefits of Virtual Training

Virtual reality training is also cost-efficient. Most organizations have reported having recorded high expenses and incurred significant costs in offering their workers training and development studies. In the medical field, for instance, the expenses incurred in training are very high in terms of trainers as well as dults and equipment. With the use of virtual reality, such fields will enjoy low training expenses through the reduction of costs of purchasing or acquiring training resources, tutors' salaries and safety allowances, and learners' safety expenses, among other bills (Craig, 2013).

Other than the array of effectiveness and cost-benefit provided by virtual reality in training, another significant advantage is that the advancement is enjoyable and innovative. This is a notably significant advantage as it eases the training sessions through the provision of enjoyable or pleasant environments, thus leading to an advanced level of understanding and engagement.

While virtual reality developers such as Ve-Top account for the technological advancements, they also take that opportunity to enhance studies through virtual reality by making training smarter and facilitating its accessibility for every learner. Ve-Top has collaborated with learning institutions, hospitals, and companies to seize the full significance of this revolutionary technology while ensuring that training is a pleasant and enjoyable experience (Hill, 2016).

Applications of Virtual Reality Across Professional Sectors

Despite the fact that virtual reality is majorly applied in the health sector, other sectors have also adopted it and are applying it for training purposes. Other sectors that use virtual reality simulations in conducting training include the armed forces, telecoms, education, construction, and business.

While the aspect of virtual reality simulations is enjoyable and pleasant, the concepts of money and time are also essential. People should undergo training as it is a necessity and requirement for better output and performance in their career fields. It also facilitates proper learning of a subject, hence full productivity. While the costs can be a challenge, for instance, in the development of a series of prototypes, virtual reality gets rid of the requirement for repetitive prototyping as well as implementation, whose expenses can be high. Instead, virtual reality replaces such requirements with an individual model which can be applied to various training sessions (Hill, 2016). Additionally, the simulations are accessible from various locations, thus saving both money and time.

However, virtual reality simulations, just like other technologies, have their advantages and disadvantages. Despite being a convenient and efficient learning tool, the innovation holds its impacts and effects mostly on its users.

Social Integration, Mobile Technology, and the Limits of Virtual Experience

In the recent past, significant steps have been taken in the technological world regarding social integration and mobile technology. Many people have disconnected from the real world surrounding them due to simplified access to social media. This has created potential dangers and risks for these people and others. With these facts at hand, we are bound to explore the causes and effects of virtual reality on people.

One of the dangers is about the sociological and psychological aspects of a person. According to most physicians and psychologists, virtual reality is likely to have long-term implications for a person's mental and sociological issues due to its immersive technology. It is believed that VR can lead to long-term trauma as well as an adverse shift in attitude, moods, perception, and behaviour (Robb, 2014). VR is also linked to accidents. There have been reported cases of accidental deaths of individuals while playing video games, especially Pokemon Go. There has also been an account of road accidents globally as a result of people playing virtual games while on the road. In Japan, such cases have been confirmed as drivers are immensely absorbed in such games (Seibert & Shafer, 2017).

There is also the risk of cybersickness, also termed virtual-reality sickness. An individual who is cyber sick is likely to experience feelings such as disorientation, nausea, headaches, pallor as well and vomiting. These symptoms are similar to those associated with motion sickness. Cybersickness is thought to be a result of conflicts within the brain (Menzies et al., 2016).

In truism, virtual reality holds a promising future, especially in the field of medicine and the education sector in general. Technology can be a revolutionary tool that is essential in offering training and teaching various skills and techniques to employees and trainees. However, people's lack of discipline in using it leads to most of the repercussions, even loss of life. Its scope of use is infinite and has already been seen to boost sectors such as the tourism industry, facilitating travel to most tourist attraction sites without necessarily catching a flight. It should be upon people to use the technology objectively and adequately to avoid long-term implications and accidents.

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