New Media and the Interaction with Cinema

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Abstract *This paper aims at a brief presentation of the phenomenon represented by virtual reality, a phenomenon whose scale and development revolutionized the world of the 21st century. Virtual Reality is a concept that allows, with the help of modern technologies, the creation of an illusory environment in which the user is induced to feel in a real space with which he has the possibility to interact.*

Keywords: *virtual; technology; video; computer*

1. What does "Virtual Reality" mean?

We explore and understand the world through senses that, along with the brain, the body's command center, a true processor, receive all the information from the environment and transform them into sensations. So our whole experience of reality is a combination of brain-processed sensory information. Using this reasoning, it would result that if we delivered to our senses artificially manufactured information, then the way we see reality would become distorted, changed.

This is what the virtual realm actually deals with. Our senses come into contact with an imaginary universe produced by a computer, a universe we perceive as a reality, a virtual reality: "The idea of this technology should be capable of creating an imaginary world that should not be distinguished from the real world".

Virtual Reality, in Virtual Reality, refers to a system of concepts, methods and techniques that are used to make sowfware products for use with computers and specialized equipment. They modify how man perceives reality from the natural environment by simulating another reality. Virtual reality encompasses a three-dimensional computer generated environment that a user comes into contact with. Thus, the individual integrates into the virtual world created and interacts by participating in actions.

The beginnings of the virtual world are long before the term has been used. If we are to consider virtual reality to be the creation of illusion and to be present in a space that is not, then I dare to recall the Italian painter Arcimboldo, who at the middle of the sixteenth century painted paintings, allegorical figures by the combination of some objects and animals (vegetables, fish, birds) creating by their strange association, seemingly realistic images, his works being points of reference in the later creations of surrealist Dali. The idea gained greater clarity with the 19th-century panoramic mural, which seemed to fill the viewer's view, giving the illusion that he was a participant in that evoked historical event.

In 1838, the physicist Wheastone demonstrated that humans have the ability to process two 2D images that they see each one with one eye turning them into a 3D one. So when we see two stereoscopic images, it is the illusion that we see more than it is.
This is how the stereoscope appeared, a magic of that time, the principle of which is today used by Google Cardboard or Samsung Gear on VR equipment. Once the urge to provoke the senses, things have accelerated.

In 1929, the US Space Administration worked on a simulator in the form of a capsule capable of simulating turbulence and other flying events. This device has been successfully used for training for pilots in World War II. In the written story of Weibaum "Pygmalion Spectacles" in 1930 people wore glasses entering a world of holograms ...

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The 50s come with an even bold invention. Morton Heilig gave birth to Sensorama, an arcade construction where there was a vibrating chair, stereo audio speakers, fans, a stereoscopic display elements that by conjugation made the spectator feel like taking part in action. Later he invented the first HMD or head mounted display featuring stereoscopic 3D images and stereo sound. The 60s are even closer to the concept of virtual reality.

Ivan Sutherland describes in his scientific paper "Ultimate Display", which could simulate reality to a point where a person could not distinguish between the generated reality and the real one. It appeared as a room where a computer can control the existence of objects. Later Sutherland created the first headset called Sword Of Damocles. This giant device was connected to a computer, but it was very difficult to be used comfortably and with pretty primitive graphics.

In 1978 a team of students from the American University MIT created an interactive VR map of a Colorado ski resort, collecting information obtained by using video cameras mounted on the roof of the cars. Four rooms were used in different directions. From 10 to 10 meters, the cameras were triggered by a motion sensor, and the captured images were correlated with a physical city map. An analogue interface overlayed a digital interface, or navigation buttons through which users could access and explore the map. That's how Streetview was born.

However, the term VR was set by the founder of the Visual Programing Lab, Jaron Lanier, a virtual art pioneer, the creator of the first virtual glasses that were sold and sold at exorbitant sums reaching $ 50,000 in the pair.

With the emergence of the Star Treck phenomenon in the cinema, the idea of virtual space has grown ever larger. The world wanted to escape in an unknown space of the SF. An even greater wave of interest in the virtual world created Matrix.

2. Applicability

The technology has evolved dazzlingly fast. The rapid evolution of propelled motion screens and motion sensors and the success of smarthphone smartphones have made it easier for start-ups such as Oculus Rift to offer VR experiences as close to reality as possible.

The emergence of smaller and smaller CPUs has created the possibility for VR equipment developers to build as comfortable and affordable as the price at the same time.

A VR helmet sends the user into a new world with real-life experiences that in seconds he will no longer feel the difference, reaching the performance of the user receiving gustative, tactile, auditory and visual information. The experience of using VRs can be scary by real. It has been found that some users have even dizzy, bad moves. You put on your glasses and you just forget that you're lying a lie.

The virtual universe has come so realistically conceived that psychologists have come to believe that their use can create serious psychological and behavioral problems, especially when the user is a child and especially when placed in a virtual environment whose subject matter involves engaging in a violent situation.

And yet the entertainment industry is increasingly interested in VR's applications, the world being dependent on new cinematic experiences, interested and avid of the newest and most performing and most interactive games. Also, the theater, a rather conservative art, is essentially starting to use media technology. The heavy decorations are replaced by virtual spaces. In 1981, director Lee Brauer amazed the world with the Hajj show where, using mirrors and monitors where projections were communicating with the live actor on stage.

The sphere of interest in virtual space has not stopped its influence only in art and entertainment. There are other applications of the virtual world in many industrial and research fields. Architectural applications have been created so you can travel virtually

through apartments, museums. Virtual use medicine can offer students the chance to practice virtual patients. In other words, Virtual Reality will substantially change how man reacts to the environment and his fellow humans.

Large car companies use VR technology to build virtual prototypes for new vehicles and test them thoroughly before entering production, thereby reducing the cost of testing machines. Creators of virtual applications are increasingly looking to improve their technology in order to get as close as possible to existing ones. Nowadays, there are companies specializing in the development of motion tracking systems. This technology has created dependency so technological giants have seen great business potential. Companies such as Google, Samsung, Facebook invest in such projects. Facebook bought the Oculus VR kit. Moreover, virtual reality will make important steps in Social Networking, and it will surely completely change the way we socialize today. Skype, Messenger, will probably be included in the Museum of Primary Communication.

VR technology by its desire to imitate the world creates a kind of parallel universe. Still working to make as little as possible visible background noise failures and seeking a better resolution and amplifying the smoothest dynamics to achieve the perfect magic of the virtual universe.

Virtual reality in addition to applications in medicine, military technology, civil industry and, of course, entertainment is also required in the educational field. The educational area has an explosive potential and will grow exponentially. We already work on applications designed to radically transform the education system. Students and students will have the opportunity to visit research facilities by interacting with them.

3. Conclusions

Virtual Reality will substantially change how man reacts with the environment and his peers. The speed of information circulation due to over-technology has come to create a communication system that goes beyond the human area. Face-to-face communication is more and more avoided, people no longer communicate with each other ... they only communicate their images.

The world will become dependent on this SF technology and only time will prove whether or not a Pandora's Box has opened with this discovery.

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