Chapter 10
The Study of Virtual Reality Technology in the Context of Simulation Concept With Regards to Children's Use Case Study Project Nebula:
Virtual Reality Technology in the Context of Simulation

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ABSTRACT

The adverse effects of new communication systems on children are discussed frequently today. A group of volunteers showed that new technologies could be used for providing benefit to children in workshops carried out with children under the title of Project Nebula. In that respect, the thoughts of Jean Baudrillard, who is a postmodern media theoretician, presented by way of simulation/simulacra concept were discussed in the context of children's use of VR technology. In the workshops carried out with 6-15 year old children from various socioeconomic and social cultural groups, Project Nebula requested children draw their dreams on a paper first and then showed them their dreams by means of VR technology. In the workshops carried out by Project Nebula, the discussions also include what this technology offers for children and how VR can be used in a utilitarian way by children when the interactivity that the children experience with VR technology is discussed within the context of simulation/simulacra concept.

INTRODUCTION

The timelessness of multimedia's hypertext is a decisive feature of our culture, shaping the minds and memories of children educated in the new cultural context. (Castells, 2010).

Development of the new media and its being used by masses expand and enlarge the new media tools introduced by the new media. In the age of digitalization, one of the most discussed topics in the world is virtual reality. While offering three-dimensional worlds to individuals, virtual reality allows them to enter these worlds. What is perceived and what is tried to be comprehended in these worlds change the perceived world of the individuals as well as transforming it. Children, who have different perception potentials than adults, try to understand different perceptions in this technology which allows expansion of imagination in the world offered by the three-dimensional virtual realities. Within the scope of the project started with the name of Project Nebula, children in 9 different groups were enabled to see what they dreamed and drew on paper first by means of modelling method and then three-dimensional virtual reality technology as an example of case study method. The aims of this study is to enable children who are acquainted with the VR technology first time to understand the difference between the realities that occur in their perceptions and the world offered by virtual reality and discuss what VR technology offers to the next generations. The socioeconomic and sociocultural nature of the children in these groups differ from each other. The reactions of children after meeting VR technology revealed new questioning on whether this technology discussed under the topic of new media can change their perceptions in a positive way. Postmodern media theoretician Jean Baudrillard's simulation/simulacra concept was chosen as the concept that forms the frame for discussion of three-dimensional virtual reality. In that respect, the world offered to children by the three-dimensional virtual reality will be questioned and the impact of the VR technology offered in the workshop on children will be discussed within the framework of Jean Baudrillard's simulation/simulacra concept.

BACKGROUND

Children who are grow up in the digital age in 21st century must be open to the innovations offered by digital culture. Today, even the order of the preschool education is established for the children of generation Y, digital natives. In order that digital technology, which is so much integrative in the children's world, affects children positively, we have duties in that regard (Rogulj, 2014). According to Gustavo S. Mesch, technology creates social actors (Mesch, 2009). Social actors created by technology appear as the digital consumers of the digital age. Rabello de Castro also emphasized that children and adolescents are not 'potential consumers', they are 'today's consumers' (Musanti, Pargman, & Pini, 2015). Attempting explain Digital Consumerist Context (DCC) with categories, Susan Edwards emphasizes the item 'play is cultural and temporally adaptive' and the importance of digital technology for children in reshaping the scientific knowledge to include cultural tools in digital revolution (Edwards, 2013). One of the mostly discussed topics under the title of new media, VR technology prioritises that digital consumers, digital natives are considered as the determinants of the communication technologies of coming years. In the Project Nebula, participating children had the opportunity to solidify their dream with the world offered by the VR technology as the digital consumers of now. Children draw their dreams on a paper according to the topic determined in each workshop. Ideas on the paper are transformed to three-dimensional

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