Chapter 2

Affective Presence in Enactive Immersive Space: Sensorial and Mobile Technologies Reengineering Life

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ABSTRACT

The reengineering of life through the sense of presence in virtual and augmented reality raised in art and technoscience is the focus of the aesthetical, scientific, and technological potential for the changes to the ecological, social, environmental, and biological condition. Virtual reality immersion uses proprioceptive trackers for navigation and stereoscopy in kinesthesia generating compelling experience inside data landscapes. Nowadays, disruptive technologies melting biological, synthetic worlds (data-cyber) and physic spaces (biocybrid systems) allow synaesthetic embodied experience to the Spinozian body. In enactive affective systems, the sentient and pervasive technologies by the invasion of mobile technologies, physiological sensors, computer vision, locative, and geodesic dialogues of organisms/data and environment are in reciprocal and mutual exchanges. The ontology of life conciliates paradoxes and conflicts of emergent realities and self-organizing dialogues between artificial and natural modifying the concept of reality, which is always a philosophical concept.

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INTRODUCTION

This essay focuses on discussions on virtual reality immersive spaces in various issues coming from the artworks raised in the field of Art TechnoScience and their aesthetical, scientific and technological appeal. There are topics related to the humanization and naturalization of technologies, the transcendent and consciousness states claimed for immersion in VR (Virtual Reality) and urban mixed life in AR (Augmented Reality). It is emphasized the qualities of immersion, navigation, proprioception amplified to synaesthesia that reshape the consciousness issues in data landscapes and mixed realities. In the beginning, synthetic data created Virtual Reality scenes that went into the frames that were expanded in order to make “a room with a view” (Sandin, De Fanti, & Cruz-Neira, 1993) or CAVEs (Cave Automatic Virtual Environment). After, the VR scenes and objects escaped to the physic space to be mixed and to live in physic and hybrid space of the AR Augmented Reality. By adding the mobile devices, the MAR (Mobile Augmented Reality), mixed data landscapes and data objects to human biocybrid (bio+cyber+hybrid) scenario.

All those aspects are considered because every technology promotes changes in the field of perception in its potential to expand and modify the sense of presence in the world. Perception and cognition resulting of human experience facing technologies expand the world and the body apparatus living in. This is the main secret topic must be analyzed when facing the creative technologies and innovation for the expanded sensorium and respective aesthetical responsive actions in the world. The reengineering of life expanded in the perceptual experiences by the sense of presence in Virtual Reality and Augmented Reality using mobile devices (MAR) Mobile Augmented Reality is the seminal theme of the present essay. The investigation lead in transdisciplinary collaborative practices and confirms that the artists´ creativity when connected to the inventiveness of scientists make available the mutual capacities for the reciprocity of the generation related to enactive immersive sensorial landscapes.

The ontology of life towards different levels of reality that attempt to conciliate paradoxes and conflicts related to changes and challenges of human condition are the recent scene which embraced the effects of technologies. Art and TechnoScience are in theirs roots and deal with emergent realities and self-organizing dialogues between artificial spaces and the natural signals, natural and artificial, human and non-human, life and synthetic life, modify the concept of reality, which one is always a philosophical concept. We propose immersive and mixed reality affective environments with embedded multisensory systems, responsible for the strong experiential nature in synthetic spaces of virtual reality and in the moistures with physic and hybrid spaces of mobile augmented reality. There are experiences of spaces constructed biologically, transduced by algorithmic codes. They are shaped by...
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